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ABSTRACT

This report presents the results of a study and survey of the occupational role of the college professor at Pennsylvania State University. This report: (1) describes in detail the actual professional work activities of full-time college professors at the campus; (2) contains a cross-sectional analysis of reported changes in the roles of college professors by rank and year of graduation; (3) examines the extent and consequences of role fractionalization of college professors' professional activities within the 10 different academic colleges; and (4) delineates how these professors perceive their occupational roles and the amount of satisfaction and dissatisfaction their roles provide them. The research procedures used for this study are described, conclusions are made and recommendations given. Tables and the questionnaire are presented in the appendix. (AF)

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THE OCCUPATIONAL ROLES OF COLLEGE PROFESSORS

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June 1969

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HEALTH, EDUCATION, AND WELFARE

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University Park, Pennsylvania

June 26, 1969

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SUMMARY

This report presents the results of a study of the occupational roles of the college professor at a large state-related university. The study was designed to provide information on four related objectives:

1. This report contains a detailed description of the actual professional work activities of full-time college professors at the University Park Campus of The Pennsylvania State University.

2. The report also contains a cross-sectional analysis of reported changes in the roles of college professors by rank and year of graduation.

3. The report also examines the extent and consequences of role fractionalization of college professors' professional activities within the ten different academic colleges.

4. The report also contains a delineation of how these college professors perceive their occupational roles and the amount of satisfaction and dissatisfaction their roles provide them.

Since the study was designed to provide more systematic information on what professors actually do, what is expected of them, and how they perceive the expectations relevant others have of them, the data reported in this study is for the most part descriptive. When warranted, appropriate statistical tests are reported within the main body of the report in analyzing differences between professors in different colleges, academic ranks, and age categories as well as other variables.

The study was done at the University Park Campus of The Pennsylvania State University during 1968-1969. Subjects in this study were full-time faculty members at the University Park Campus with the academic rank of instructor to full professor. After a pretest, a 14 page information schedule was sent to all full-time faculty at the University Park Campus via the campus mailing system. Of the 1,555 full-time faculty sent the information schedule, 628 members of the full-time faculty completed and returned the information schedule. Data from the information schedules were coded and punched on IBM cards and tabulation by college, academic rank, age, professional training, primary role activities, and areas of occupational satisfaction and dissatisfaction.

In order to make the sample representative of the total faculty by college affiliation and academic rank, sixty professors were purposively extracted from the sample using a table of random numbers thus reducing the sample to 568.

The report contains detailed information in the study or in the appendix tables about the 568 faculty members who participated in the study. The rate of return was 39 percent which compares favorably with other studies done of college professors.

On the average, professors who participated in the study spent most of their time during the academic year involved in instructional duties. Within the teaching role, 37 percent of their time involved teaching undergraduates and 17 percent in teaching graduate students. Very few sponsor extracurricular student activities.

The second largest amount of the professors' time was spent on research activities. Approximately 39 percent of their time during the year is given over to this occupational role activity as reported by the respondents. The average amount of time professors spent at this professional duties per week was approximately 50 hours per week.

While professors reported that they would spend more time at research activities (58 percent), they also reported they would spend less time at administrative duties. Significantly, these professors did not report a preference for spending more time or even less time on character building duties.

Research activities appeared to be highly important to the professors in that 83 percent were currently engaged in doing research at the time of the study and 52 percent had two or three research projects currently underway. Moreover, research productivity as measured by the number of papers and book published reflected the importance of research to these professors. The average number of papers and books published by the faculty during their career was 14. Only 18 percent of the faculty reported not publishing any papers during their career. Considering the fact that this faculty averaged 14 years in their professional field, their rate of publication appears comparable to professors at other state universities.

Most of the professors teach during the year (94 percent), and most of these teach undergraduate courses. About one-half of the respondents teach one course per term. Significantly, research and teaching were the major occupational activities most professors in this study engaged in during the year.

Several changes have occurred in the roles of college professors and in the organizational context of the university. Teaching loads have decreased significantly. Character building activities have also declined. Faculty committee activities have dramatically increased. No change was reported on low faculty involvement in university level policy making.

Most of the changes nationally reported on the changing structure of the universities were found in this study. The two greatest items of change reported by this sample were increasing academic staff size and increasing support staff size.

On the role expectation of publication, substantial pressures seem to come equally from four sources. The professors themselves, university, college, and departmental chairman are equally perceived by the respondents as the major sources for the expectation that they publish. Eight-four percent reported no pressure at all coming from students. The importance of research as a role expectation for the professor is reflected in the criteria used to evaluate the faculty. Forty-eight percent reported that publications were very important criteria in evaluating their role performance for raises and/or promotions. Conversely, only 19 percent reported that teaching performance is a very important criterion used in the evaluation of the roles.

The incidence of role fractionalization of the professor's roles at this university does not appear to be as great as has been suggested in the literature. Teaching and research are perceived to be equally important roles for the professors. Sixty-two percent reported that they are satisfied with the relationship between teaching and research in their departments. But, most professors do not relate their research to their teaching activities at the undergraduate level. Moreover, given the data on the importance of the research role reported above, the past reports that the expectations of the professor's role lack clarity and consensus does not appear to be valid for this group of professors. The expectations which others hold for them are clearly perceived by these professors and these professors appeared to agree with the expectations held by significant others. Research activities were preferred by over one-half of the faculty (58 percent) compared with teaching and other occupational duties.

One major trend regarding bureaucratization appeared to be associated with the reported lack of influence professors have in many areas affecting their professional duties. In fifteen decision areas related to the professor's roles, the department chairman was reported to have the most influence in twelve of these. Professors had the greatest degree of influence only in decisions affecting the focus of their research and their attendance at professional meetings. University administrators above the department chairman had the greatest degree of influence only in the selection of a new chairman. Further, almost one-half of the faculty members (44 percent) reported that there was no effective organizational medium for expressing the faculty's viewpoint. Sixty-five percent reported that this situation has not changed since they became employees of this university.

Most of the professors in this study perceived their occupational roles in terms of research and teaching activities. Both roles were viewed as being equally important to them. However, they felt that they were more effective at their teaching duties and less effective in obtaining research contracts. Oddly enough, while the traditional role of the professor as a developor of the moral character of students still was viewed as important to the professors, they were uncertain how effective they were in this role nor would they spend any more or less time on this activity.

The professors in this study appeared to be mostly satisfied with their occupational roles. The greatest source of satisfaction reported was with those duties connected with teaching activities, particularly the control they had over this role. Dissatisfaction was reported with their teaching duties not being equally considered for advancement with their research duties by the administration.

Present salary and fringe benefits did not appear to be major areas of dissatisfaction for these professors. Physical working conditions and university policies on promotions, raises, and travel were the major areas of dissatisfaction reported by the respondents on work conditions.

One clear area of dissatisfaction reported in this study was in the area of professional control and autonomy. Professors reported more dissatisfaction with their lack of control over broad university policy, with administrative evaluation of their role performance, overall academic excellence, faculty-administration communication on student problems and educational policy, than most other areas they were questioned on. They also reported dissatisfaction with the federal government's regulations and policies concerning research grants.

These findings suggest that further research be done concentrating on the different role conceptions held by faculty, students, and administrators concerning the role activities on these three groups. Personal interviews seem to be the next step in order to explore further the experiential features of professors' roles.

CHAPTER 1

Background for the Study

Introduction to the Problem

Higher education in the United States has been in the past periodically examined and analyzed by various investigators. However, since the Free Speech Movement at the University of California at Berkeley during 1964, American colleges and universities have come under closer scrutiny as the frequency and extent of campus disruption continued to increase. One consequence of this concern with the problems and turmoil facing higher education today is the biased focus of most reports on students and administrators of the various troubled campuses. This study explores the professional role activities of college professors in all academic ranks and all colleges within the organizational context of a relatively untroubled major state-related university. Moreover, even though the investigation was limited to a single university (The Pennsylvania State University), the findings may have wider significance in initially beginning to systematically delineate the present situation from the faculty point of view.

The Problem: Three Aspects

To date, increasing enrollments, ever enlarging academic and technical staffs, expanding curriculums, increasing financial costs, increasing bureaucratization of higher education, and the employment of academic consultants by government and business have made enormous demands on American colleges and universities. Many reports have been filed during the past decade on the rise of the "multiversity" and its effects upon students, administrators, and the general public. Many of these studies indicate that higher educational institutions are both undergoing and generating change. Most of the reports also point out that the somewhat uneven and uncoordinated organizational changes which take place on campuses have had a decided disruptive effect upon students and administrators. There is some evidence that the same is true for college professors. Yet, despite the important part played by professors in higher education, very little systematic research has been done on what the professor's occupational roles consist of and how the professor views his roles within the organizational context of a large state-related university.

The first purpose of this study was designed to describe a kind of role profile of what the professor actually does; what is expected of him by significant others; and what effects, if any, the above changes in higher education have had on the professor's roles within the ten different colleges of a large state-related university.

Over the last 20 years, various researchers have suggested that the roles of college professors have become fractionalized into at least three major but often conflicting activities: researcher, teacher, and character builder. It has been suggested that there is an increasing tendency for these three traditional occupational activities of college professors to become mutually exclusive activities which appear to have very little correspondence to each other as they once did before World War II. It has also been suggested that the problems associated with the lack of consensus in the professor's roles are due to the traditional organizational expectation that these roles be performed concomitantly by one man while the bureaucratic and/or professional reality of the professor's occupation is based on different expectations.

The second purpose of this study was to assess the extent and consequences of the fractionalization of the college professor's roles within the context of a state-related university.

Many of the studies of college professors have tended to overemphasize some of the more stereotyped characteristics of this occupational role, suggesting that certain features of the role are representative of professors in general. Such broad stroke descriptions of the roles of professors do not provide a dependable analysis of the professor's conception of his roles since the primary concern of these studies is circumscribed by implicit assumptions based on these stereotypes and the peculiar data used to support the findings.

It was the third purpose of this study to assemble a battery of data based upon how professors themselves perceive their occupational roles and the satisfactions and dissatisfactions their occupation provides them.

Review of Related Literature

Oddly enough, we have very little systematic knowledge about the organized occupational activities of college professors, despite the fact that this occupational role has its historical antecedents during Medieval times (Heer, 32). Yet, a systematic investigation of all the occupational activities of the college professor is conspicuously absent among the many volumes of literature devoted to this subject.

Initially with Wilson (71), in 1942, through Jencks and Riesman (39), in 1968, most of the research on the occupational roles of the college professors is either empirically inadequate or analytically limited to some circumscribed aspect of the professor's roles. Moreover, the bulk of the literature during the past two decades has focused on higher education in a general way, surveying all the segments involved in the educational process. Because of their wide scope of analysis, general reports on colleges and universities are by necessity somewhat superficial in their results.

The literature on higher education extant today may be classified into at least six general categories, all of which suffer from at least one or both of the above defects with respect to the purposes of this study. The six general categories suggested here are:[1]

1. Historical accounts of higher education;
2. Literary/expose accounts of life in academia for public consumption;
3. Research studies of selected aspects of higher education which are limited in scope;
4. Tracts and Issue oriented edited volumes of a problem-oriented quality;
5. National Governmental and Foundation reports focusing on the demographic features of higher education nationally;
6. Special Reports of various commissions designed to assess the state of higher education at particular colleges and universities.

Most of the research on higher education from a historical perspective is concerned with examining colleges and universities as they have developed over time from small Liberal Arts colleges concerned with education and polishing a small elite segment of the population (Rudolph, 59) into large universities concerned with the training of professionals of all sorts (Jencks and Riesman, 39). Other historical accounts on the development of higher education have traced the influence of society and social movements on the professor and his university environment (Hofstadter and Hardy, 36; Hofstadter and Metzger, 37; Hofstadter, 35). Another type of historical treatment has delineated the snake-like development of fads and emulation among colleges and universities (Riesman, 57). Berelson (9), Storr (64), and others have also published major works on the development of graduate school education in the United States. Finally, in one of the more comprehensive historical analysis of higher education in the United States, Veysey (67) traces the emergence of the American university system from its earliest beginnings through the American academic revolution of the late nineteenth century.

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[1] Because of the sheer volume of literature on higher education in each of these six suggested categories, it is impossible to present all of it in this report. This review of the literature following the outline suggested above will only cover those studies that have a special significance for this study. No claim is made by the author of this report that this review is exhaustive of the field or the works cited.

Judging from the various types of studies listed above on the development of higher education in the United States, colleges and universities today as well as students, professors, and administrators are the results of three major factors which have determined the shape of higher education historically.

Primarily, these studies point out that colleges and universities have grown enormously in size. Not only has the student population increased dramatically, but so has the number of colleges and universities and the number of professors and service personnel employed by higher educational institutions.

The second major feature of higher education that the historical literature indicates is the increasing complexity in the social organization of colleges and universities and the greater degree of specialization of the faculty, student body, administration, and other support personnel employed. This development is most noticeable in the ever-enlarging number of courses offered by colleges and universities as well as in the increasing number of organizational subdivisions characteristic of most universities.

A third major feature that many of the historical accounts of higher education tend to report is the expanding social functions of colleges and universities in the United States. Rather than becoming highly specialized institutions dealing with the formal education of undergraduates, colleges and universities have expanded in the services they provide both internally to the students, faculty, and administrators, and externally to the local, state, and national communities.

A second major source of literature on higher education in general, and college professors, in particular, is the literary or expose account of life in academia. There probably are literally hundreds of this type of literature ranging from magazine articles to novels to stage plays and movies. Quite a few of these fictional portraits of the professor do not present a favorable image of life in academia (Jarrell, 38). Most of the novels on colleges and universities and professors have been summarized by Lyons (46), and to repeat his summary here would serve no useful purpose.

A third type of data available on higher education and professors is the research study on selected aspects of the professor's activities or of colleges and universities. Ranging from Wilson's (7) seminal analysis of college professor's role in the early 1940's, to Gross' (25) analysis of the university as a goal-directed formal organization in 1969, the literature in this category appears to have covered the organized role of the college professor. However, many of these studies are quite limited in various ways in their analyses of different aspects of the college professor's roles.

Knapp and Goodrich (42) in their study of the origins of scientists initially found that liberal arts institutions were the most productive in turning out students who eventually received Ph.D.'s. Yet, a later study (Astin, 3) has shown quite the contrary.

One of the more empirical and systematic reports on college professors is the work done by Caplow and McGee (13). In exploring the personnel practices of American universities, they found that the major criteria for appointments were based upon prestige supposedly attained by scholarly achievement, but really dependent upon the opinions of significantly located academic role-models. As Hagstrom (28), Crane (16), Gusfield (26), Stecklein (63), and others point out, a major motivational factor in the performance of the college professor's role seems to be the professional prestige attained by research activity and the competition surrounding this activity. Unfortunately, most of these studies were done on faculty members of the "top" universities in the United States and may not be representative of faculty members at other educational institutions.

Several other empirical oriented studies have appeared recently on the college professor's relatively new role as a scientist in the service of society. Halsey (30), Lapp (44), and Ridgeway (56) are the most notable in their research on the professor's activity as a professional consultant to government and industry. In addition to the documentation in these studies and others on the extent and nature of the professor's extra-campus activities, these reports again limit themselves by basing their work on what they admit is a small number of professors at "top" universities.

Finally, what literature there is of an empirical quality suggests that teaching and research are only two of the activities of college professors (Sanford, 61). Other studies indicate: engaging in cermonies (Stroup, 65); counseling and advising students (Morris, 51); committee work (Woodburne, 72); filing reports (Academesis, 2); consulting (Hirsch, 34); public service (Morison, 50); attending professional or public conferences (Goldwin, 23); are some of the many work activities that college professors engage in. Bunnell (12), in an attempt to combine most of these work activities into a quantitative faculty work load measure, reports that the diversity of these activities and the inability of the professors in rating themselves made the task of assessing all the activities of professors virtually impossible in a comparative measurement sense.

Another type of literature available on colleges, universities, and professors is the issue oriented report issued singularly by various people connected in some way to educational institutions or by a group of investigators in an edited volume treating some problematic aspect in higher education.

Singular issue-oriented accounts of higher educational institutions and/or professors have increased in frequency since Veblen's (66) somewhat polemical analysis of the interaction between business and colleges. Barzun (4), Bowen (10), Goodman (24), Kerr (40), and Perkins (54), among others have all followed Veblen in their highly critical analysis of higher educational institutions in the United States. Most of these reports are wide-ranging accounts of some of the more salient features of university life.

Several other documents while limiting the focus of analysis to trustee-faculty relations (Ruml and Morrison, 60), or to the state of general education (Bell, 8), or to various issues in higher education into one volume (Morison, 50) still maintain the issue-oriented flavor characteristic of this growing segment of the literature. Most, if not all, of this type of literature tends to view the situation in higher education today as having lost its traditional ivory-tower or community of scholars atmosphere. Implicit in a lot of the work done in this vein is the assumption that this is somehow detrimental to education, in general, and to professors and students, in particular.

A fifth kind of data available on colleges, universities, and professors is the many empirical reports funded by private foundations or the United States Government which are demographic in nature. Here almost any kind of data is available from population studies (National Science Foundation Report, 53) to national surveys ranking graduate departments within each academic discipline (Cartter, 14). However, none of these report data focused on what college professors actually do within their institutions and/or how they feel about their activities.

Several other reports have recently appeared which constitute a sixth type of literature available on the roles of college professors and universities. This more recent type can be categorized as the special report commissioned by universities and colleges themselves primarily as the result of some event which took place on their campus. The main purpose of these special reports is to examine what really happened on campus, what caused the events, and what the university can do to prevent the events from happening again. Two of the most recent reports have to do with dissent and revolt on campus among undergraduate students (Muscatine, 52; Cox, 15). Insightful though this type of report may be in explicating campus issues, there is some suspicion that this type of study represents more of a public relations gambit for the colleges concerned rather than an objective reporting of factual information on higher education and professors.

In sum, while many of these reports provide insightful information concerning the roles of college professors, the apparent biased and unsystematic quality of most of this data presents a somewhat disjunctive view of the roles of college professors. Actually, upon examining this fund of literature, one may come away with a more incoherent rather than a coherent view of what the college professor's role is all about. That is, college professors seem to be engaged in a variety of activities and subjected to myriad social pressures and cross-pressures. A realistic understanding of what it is the college professor does and what others expect the professor to be is difficult to obtain when the faculty is reported in the above literature to be doing or not doing so many different things. How many professors engage in the more common activities reported in the literature and to what extent and for what reasons remains problematical at this time.

Literature on the Fractionalization of the College Professor's Roles

Several studies have been done on the roles of college professors (Brace, 11; Wilson, 71; Sanford, 61; Gusfield, 26). As it was pointed out in another section of this review, most of the studies on the college professor's roles are limited to selected features of the professor's roles. But, throughout these accounts of academia one detects the consistent implication that the professor's roles are changing along with the changing organizational structure of higher education. How much, and to what extent, and whether or not the supposed changes are real remains contested among different researchers.

One change which nearly all the researchers seem to agree on is that the lack of clarity and consensus over the duties of the professor's roles has markedly increased since Wilson (71) first noted this point twenty-five years ago.

Part of the reason for not only the conflicting viewpoints and conclusions on the changes taking place in higher education, but also for the amount of agreement among the researchers on the professor's roles lacking clarity is due to the fact that colleges and universities, as social organizations, suffer from increasing professionalization and bureaucratization occurring within a highly traditionalized institution. That is, while the reports agree that the roles of professors appear ambiguous to just about everyone in the situation, depending upon whether one views higher education as becoming more professionalized (Jencks and Riesman, 39); more bureaucratized (Stroup, 65); or should remain as the traditional ivory tower community (Goodman, 24); one can come to different conclusions on what's happening to the roles of the college professor. Scott (62) has suggested the literature on organizations is characterized by a number of conceptual schemes focusing on various aspects of organizations and there is every reason to believe that the literature on higher education and the college professor is similarly affected. Moreover, since these reports on college professors and higher education in a state of change are all analyzing the same class of phenomenon, it appears certain that each viewpoint has some validity and that all must be examined to represent the situation more accurately.

Recently, Knapp (41) has suggested a line of analysis wherein the interplay of professionalization, bureaucratization, and tradition can be more clearly focused. He has hypothesized that the traditional role of the college professor has become fractionalized into at least three separate but often conflicting and/or incongruent activities: researcher, teacher, and character builder. What is being described by Knapp is the process of bureaucratization characteristic of large organizations. Universities, colleges and the members of these organizations appear to have just recently recognized the fact (Roszak, 58) that the same process is occurring on campus since World War II, that has occurred in government and industry. In identifying the incipient subdivision of the college professor's role into three parts which seems to be occurring in universities, Knapp (41) has clearly touched upon one of the major features of bureaucratization.

As universities and colleges have grown in size over the past two decades several of the dimensions which characterize bureaucratic organizations (Hall, 29) have increasingly appeared on campus (Stroup, 65). These include:

1. The hierarchy of authority flowing from the board of trustees down to the undergraduate students in graduated chunks.
2. A division of labor by which the tasks of the organization are subdivided by functional specialization based upon the technical competence of the employee, e.g., the professor.
3. A system of rules and procedures which generally delineate the rights and duties of employees.
4. A system of procedures dealing with work situations.
5. The norm of impersonality governing interpersonal relations.
6. Selection and advancement based upon technical competence.

To what extent campuses are bureaucratized depends upon several factors, one of which is the strength of the traditional conception of the university as an ivory tower community of scholars (Goodman, 24). From this perspective the professor's roles should include research, writing, teaching, etc. (Eells, 21) in one coherent role bundle. In addition, the professor as a scholar should maintain a deportment characterized by a graceful intellectual approach to knowledge, flexibility of beliefs, a breadth of culture, a highly sensitive imagination, and a disinterested pursuit of pure knowledge (Mills, 49). Insofar as administrators, professors, and students still maintain that most professors must teach and do research in a scientific manner as well as take an active part in the college community there exists the frozen traditional conception of the role of the professor which will probably conflict with the bureaucratic reality of the situation as described by Knapp (41). For most of the problems associated with the lack of consensus over what the college professor is expected to do and be may be due to this conflict between the traditional conception of the professor's role and the bureaucratic features of the roles.

Operating at the same time and in the same place one also finds the professionalization of the college professor's roles (Jencks and Riesman, 39). Colleges and universities themselves are the prime developers and perpetuators of this process, particularly since the development of the graduate school. In training and employing their own products, colleges and universities have greatly contributed to the professionalization of the college professor's occupation (Vreeland and Bidwell, 69). The two attributes of the professional appear to be very strongly developed on campus (Jencks and Riesman, 39). First are those characteristics which are structural in nature such as formal education and entrance requirements based on knowledge of a body of theory.[2] The other aspects are attitudinal in nature, including a sense of calling of the person to his field, use of professional colleagues as one's major occupational reference group, and the desire for professional autonomy (Volmer and Mills, 68).

Various features of the college professor's occupational situation identified by researchers leave little doubt that professionalism is a significant force on campus. Ruml and Morrison (60) have stressed the individualistic qualities of the faculty as well as faculty conservatism due to the power residing in departments as a major impediment against changing higher educational institutions. Caplow and McGee (13) have documented the department as the nucleus of power in the university and as the locus of the professor's organizational identification. Gusfield (26) in his analysis concludes that the professional association in general, and professional colleagues in particular, represent the major reference group for college professors.

Each of these processes are usually treated as a separate dimension in discussions on higher education. And it is generally believed that there is an inverse relationship between professionalization and bureaucratization or traditionalism and bureaucratization. Yet, we don't know whether it is increasing bureaucratization generating fractionalization which accounts for the lack of clarity and consensus over the professor's roles or something else. It could be that the traditional requirement that the professor perform all of his roles concomitantly with little provision made by the university for the bureaucratic or professional reality of the situation which accounts for the ambiguity over the professor's roles. Finally, it may be that the professional features of the college professor's role conflicts with its bureaucratic setting. It is not possible to determine from the literature whether fractionalization exists and to what extent, nor the factors mentioned above which are responsible for some roles becoming more fractionalized than others.

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[2] The requirement of the Ph.D. degree for employment and advancement in academia is the most salient index of this feature of professionalism.

On Role Satisfaction and Dissatisfaction Associated with the College Professor's Occupational Activities

There is very little literature on the factors which affect and mold the college professors' orientation towards their occupational activities and the satisfactions or dissatisfactions they receive from their roles. Some observers have suggested that insofar as higher educational institutions recruit and train their own employees, college professors may become committed and narrowly oriented to a highly congruent and specialized occupational role (Gamson, 22; Kerr, 40; Hargens and Hagstrom, 31). In spending anywhere from five to seven years in graduate school and the rest of their career in a specialized segment of their discipline, it has been suggested that college professors (Currie, 17; Diekhoff, 19) become so molded into specialized roles that they have difficulty interacting with others outside of their special balliwick (Perkins, 54). When students, administrators or the public expect the professor to perform roles dissimilar to those which the professor has spent most of his time at since graduate school, difficulties emerge for the professor and role dissatisfaction may ensue. Since some of the people the professor inacts with may just expect the professor to carry out the roles traditionally expected of him but which as a professional he doesn't view as germain to his professional career, the professor's situation may be frought with role conflict and experienced dissatisfaction (Barzun, 5). On the other hand, the professor may not experience any difficulty with his roles if his occupational situation and his previous training are not discontinuous (Becker and Carper, 7). In this case, satisfaction and dissatisfaction with his roles may be associated with other dimensions of the situation.

Caplow and McGee (13) have found that one of these dimensions which creates difficulty for professors is the problems associated with the issue of teaching versus research. They suggest that real problems for professors arise from the fact that professors are really paid to do one job (teach students) while their ability or performance is assessed on the basis of how well they do another (research and publication). Other reports (Wilson, 71; Williams, 70; Knapp, 41; Stroup, 65; Cutter, 18) indicate that this feature of the professor's role is neither an overgeneralization nor an oversimplification. Yet, it may be that this situation obtains only in certain types of educational institutions and not for all campuses (Price, 55), or just for particular disciplines (Hagstrom, 28).

Another area of the occupation of the professor which may create difficulty coalesces around the increasing professionalism of the professors and the increasing bureaucratization of the educational institutions (Kornhauser, 43; Herge, 33). Problems over decision-making, communication, curriculum development, etc., seem to be more divisive today than in other times (Abbott, 1).

Caplow and McGee (13) identified a whole new area which may be associated with increasing bureaucratization of the educational structure. The results of their study indicate that the "push" of academic migration is stronger than the "pull." In other words, they found that the majority of vacancies in college departments cannot be attributed to the opportunities elsewhere but to dissatisfaction to their present position. Dissatisfaction with the present position is caused either by the failure of the professor to please his associates or of the associates' failure to please the professor or both. Indeed, the literary treatments of this occupation constantly point out the interpersonal problems besetting academia (Jarrell, 38).

The commitment of the professor, either to his university or to his discipline has also been found to be a source of problems to professors, administrators, and students (Wilson, 71; Gusfield, 26; Caplow and McGee, 13).

Another area of dissatisfaction with the professorial role reported in the literature is the many duties required of the professor which he feels are peripheral to his major role (Gustad, 27; Williams, 70). Complaints about committee work and other administrative duties seem to be the most vocal areas of dissatisfaction with peripheral activities.

Finally, there is the whole area of the reward structure associated with the professor's roles. Lazarsfeld and Thielens (45) found that professors consider themselves an occupational minority toward which significant sectors of the lay community hold relatively contemptuous attitudes. More significantly, an area of widespread dissatisfaction among professors is the low salaries paid to professors (Eckert and Stecklein, 20).

The above features of the roles of college professors represent many of the potential causes of dissatisfaction among professors regarding their occupation. With the exception of one or two studies, systematic data attempting to ferret out the existence and extent of these situations among different academic departments and professors is lacking at this time.

Objectives

Given the general purpose of this project, it was approached and analyzed from the point of view of the college professor's occupational experiences within his college. Hence, the project touched upon many facets of organizational structure of the university and was concerned with the following specific objectives:

1. Determining the major activities of college professors within the university, especially:

    a. A description of the work activities of college professors including an analysis of how professors spend their time at different duties, their work load, professional output, and membership in various academic organizations by college affiliation, academic rank, and other variables.

    b. To obtain information regarding possible changes in the roles of college professors by a cross-sectional analysis of professors at different stages in their careers based on academic rank and year of graduation.

2. Describing the extent of fractionalization of the roles of college professors prevalent within the university, particularly:

    a. To determine whether or not the major occupational activities of college professors are possibly mutually exclusive having little correspondence to one another;

    b. To analyze what effects engaging in mutually exclusive occupational activities have on professors within the university.

3. Determining the college professors' conceptions of their occupational activities and their attitudes toward them, especially:

    a. How the college professors within the university perceive the expectations others have of their occupational roles and what pressures are directed toward them by others;

    b. To determine the extent and prevalence of major role orientations as the professors themselves perceive their occupational roles among college professors in the ten different colleges;

    c. To determine the major areas of job satisfaction and dissatisfaction among professors within the university.

CHAPTER 2

Research Procedures

Design of the Study

Prior to the time this study began, it was decided that the data on the occupational roles of college professors would be gathered in a two-step design. The first step or Field Study Phase consisted of the distribution and collection by campus mail of an information schedule to all full-time members of the faculty. Second, in order to explore more extensively the experiential quality of the professor's roles, a small sample of faculty members stratified by academic rank, age, sex, college, professional training, type of occupational duties and reported satisfaction and dissatisfaction with the professor's roles was to be drawn from the ten colleges of The Pennsylvania State University and personally interviewed. It was believed that the personal interview phase could be done within the time schedule of this project and that this stage would provide more comprehensive information on the roles of college professors. Subsequent revision of the original time schedule in the awarding of the contract required that this original study design be revised by excluding the personal interview phase of the design. In addition to the time schedule problem, December and January proved to be inopportune times of the academic calendar year at The Pennsylvania State University to interview faculty members since most faculty leave for the month tern holiday during December and are busy during January starting their Winter term classes. Attempts to obtain interviews during this time period did not appear to be practical. However, the Field Study Phase of the project did provide enough data to meet the objectives of this study.

Population

The population used for this study was the approximately 1,614 male and female full-time faculty members of the ten colleges, Aerospace Studies Program and Ordinance Research Laboratory at the University Park Campus of The Pennsylvania State University. One reason these professors were selected for the study was that The Pennsylvania State University appears to be a representative state university rated just below the "distinguished" leading educational institutions studied by others.[3] In 1968, it had an enrollment of 41,508 - 24,042 at University Park, 12,057 at its nineteen Commonwealth Campuses, and 5,409 in community credit classes. It ranks sixteenth in the nation in full-time enrollment. Thirty-nine percent of its budget comes from the state; twenty-three percent from the federal government; sixteen percent from tuition; fifteen percent from auxiliary earnings; and seven percent from miscellaneous sources.

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[3] See: Allan M. Cartter, An Assessment of Quality in Graduate Education (Washington, D. C.: American Council on Education, 1966), for a complete ranking of colleges and universities.

The total expenditure for research in the eleven colleges[4] of the University and in fourteen intercollege research institutes, centers, and laboratories was around $31 million. Sixty-eight percent of the funds came from the federal government; university and state sources provide twenty-four percent; and industry, private, and other sources provide eight percent.

The University operates on a four term academic year of ten week sessions. It houses on campus at University Park, 7,226 men and 5,519 women. Fraternities house 2,094 men; private homes house 6,919, trailers house 198; and 2,086 students live at home. During 1966-67, it enrolled more than 86,500 persons in 199 Pennsylvania communities in a variety of instructional extension programs. In the same year it graduated 4,091 baccalaureate, 1,205 graduate, and 712 associate degrees. Thus, while it was not assumed that this faculty and university are representative of all types of faculties and universities in the United States, given the data above, it appears to be representative of large land-grant universities.

Subjects in this study were the entire full-time faculty members in the rank of instructor, assistant, associate, and full professor in residence at the University Park Campus of The Pennsylvania State University during 1968.

Using the 1968-1969 University Bulletin and the Faculty/Staff Telephone Directory 1968-1969, a list of the full-time faculty members was developed for the ten colleges. During the time of the study in the ten colleges there were approximately 1,555 faculty members, 54 in the Ordinance Research Laboratory, and 5 in Aerospace Studies. The total population drawn for this study from the sources listed above was 1,614. Due to joint academic appointments, duplicate listings, part-time faculty, etc., the original count of 1,800 faculty members initially specified as the study population became the approximate total of 1,614.

Pretest Phase

To gain familiarity with the activities of college professors and their attitudes about their occupational roles, a pretest information schedule was sent out to a sample of 100 professors in all ranks at The Pennsylvania State University Commonwealth Campuses in July, 1968. Sixty-seven professors completed and returned the information schedule. Ten professors sent the schedule back uncompleted stating various reasons for not participating such as recently retired, still a graduate student, illness, death in the family, on study leave, etc. Twenty-three did not return the schedule. All twenty-three professors were sent two appeals without success.

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[4] The college of medicine located in Hershey, Pennsylvania, which held its first class in 1967, constitutes the eleventh college and was not included in this study.

In addition, thirteen pretest personal interviews were obtained with the cooperation of selected professors at the University Park Campus during August, 1968. Five of these were selected because they were leaving the University for various reasons. Two were selected because they were just completing their first year of teaching after graduating and one was an instructor whose career future at the time seemed unpromising. The other five were professors near retirement.

Consequently, the Pretest Phase of the project consisted of eighty cases of the above respondents, all of whom were exposed to a similar information schedule developed by the project director. The data from the pretest was coded by the project director and put on IBM cards for computer tabulation. A simple analysis of percentages and means of these professors' responses to the items on the information schedule was done to revise and shorten the information schedule for the Field Study Phase.

In addition to the revision of the information schedule, the data analyses did indicate a general tendency towards general role satisfaction (80%) among professors in the pretest. This appeared to be related to the degree of congruency between professors' perceptions of their roles and the expectations they perceived others to have for them. Low salary was the greatest source of dissatisfaction reported with their present position (94%). None reported any major changes taking place during their careers. Their personal career goals had not changed either since they entered college teaching (70%). Most of the professors (87%) felt that teaching was their most important occupational activity, but also reported some dissatisfaction over a growing expectation by the University that they do research (31%). Yet, 55% had not published any professional articles and 33% had only one to three publications to their credit. The most important outcome of the Pretest Phase was the revision of the information schedule.

Field Study Phase

The information schedule of the Pretest Phase was used as a reference in developing a revised 14 page information schedule (see Appendix) designed to elicit information on occupational satisfaction/dissatisfaction, career goals, occupational activities, changes in the university, perception of their roles, and the expectation others hold for the roles.

After consultation with the project director's thesis advisor, the revised information schedule was mailed directly to the offices of all 1,614 full-time faculty members at the University Park Campus during the last week of October, 1968, through the Campus mailing system.

Two appeals or follow-ups were sent out on November 13, 1968, and on January 24, 1969. ~~November 27, 1968.~~ The first appeal (see Appendix) was in the form of a letter to the faculty mailed through campus mail to their departments. The departmental secretaries were contacted by telephone by the project director and they agreed to put a copy of the first appeal letter in the mail boxes of the faculty. The second appeal to those faculty who had not completed and returned the schedule was made through the Faculty Bulletin, a weekly newsletter concerning faculty and university matters which is mailed to all the faculty throughout the University community. It was felt that two appeals were sufficient to obtain the cooperation of those faculty who wished to participate. More than two appeals to the faculty seemed to be impractical in relation to the rate of return generated by repeated appeals. The use of these two different methods of appeal to the faculty provided the broadest coverage possible in contacting those who had not returned the schedule given the resources of the study. Most of the returns came in before and right after the first appeal was made.

While the Field Study Phase was underway, a tabulation of each department's productivity for the past three years within the ten colleges was done using Research Publications and Other Contributions. This booklet is published by The Pennsylvania State University and summarizes the scholarly contributions and research activities of the faculty.

In the analysis of departmental productivity, the difficulties of measuring and equating different types of research and other contributions which professors accomplish encountered by other researchers (Crane, 16; Maris, 47) became readily apparent during this study. It was decided purely on the practical considerations of limited time and funds to ignore the issue of quantity vs. quality research (Bayer and Folger, 6), and deal with the amount of papers, chapters in books, and books published during the past three years.

Another reason for this decision was the difficulty in assessing by any qualitative standard the variety of papers and books reported by the faculty. Papers reported ranged from P.S.U. Alumni News, in-house technical reports, religious newsletters, local newspaper articles, speeches given, and Cliff's Notes to articles in The Rotarian. Whenever it was possible to exclude from the tabulation citations of this kind, they were excluded.

Respondents were not asked to sign their names and no other coded identification was printed on the information schedule. The only identifying information requested of the respondents was the limited amount of biographical information used in the analysis. Consequently, there was no way of following up on individuals who did not return the schedule other than by the general appeals discussed above.

Of the 1,614 faculty members who received the schedule, 628 completed and returned the schedule for a 39 percent return of usable schedules. When the number reported - resigned from the faculty (54), those on leave (6), those retired (11), those unusable and late (8), and those who refused to participate for various reasons (23) - is considered, 730 of the 1,614 faculty were accounted for or 45 percent return.

This 45 percent return of accounted for schedules compares favorably with the return rates of other studies (Gross 25; Berelson, 9; Cartter, 14; Eckert and Stecklein, 20; Matson, 48).

Revision of the Sample

An analysis of the return distribution of the information schedule by college affiliation and academic rank indicated that the sample of 628 faculty members who completed and returned the information schedule was not proportionately representative of the total faculty at The Pennsylvania State University. The total faculty distributed according to college affiliation and academic rank was ascertained as described above in the section on Population.

Using a chi square goodness of fit test, it was found that the colleges of Agriculture, Education, and Engineering were slightly overrepresentative in the sample of 628 when compared with the proportion of the total faculty of 1,555 by college affiliation at The Pennsylvania State University. A comparison of the sample of 628 who returned the information schedules with the total faculty by college affiliation is found in Table I, page 22.

It was also found that the sample of 628 respondents did not correspond proportionately on academic rank to the total faculty by using the same statistical technique described above in the discussion of college affiliation. The sample of 628 contains a slight overrepresentation of assistant professors and a corresponding underrepresentation of instructors. A comparison of the sample of 628 who returned the information schedules with the total faculty is found in Table II, page 22.

In order to obtain a degree of representativeness in the sample and to allow for inferential analysis concerning professors at a state-related university, it was decided to purposively sample from the 628 cases on the basis of college affiliation and academic rank.

TABLE I. Comparison Between Total Resident Faculty and the 628 Respondents, by College Affiliation[a,b,c]

College	Total Resident Faculty Number	Total Resident Faculty Percent	Respondents Number	Respondents Percent
Agriculture	203	13	101	18
Arts and Architecture	91	6	21	4
Business Administration	66	4	17	3
Earth and Mineral Industries	97	6	32	6
Education	122	8	51	9
Engineering	205	13	91	16
Health and Physical Education	91	5	22	4
Human Development	97	6	32	6
Liberal Arts	340	22	117	21
Science	243	16	81	14
TOTAL	1,555	99*	565	101

[a] Ordinance Research Laboratory N=54, not included in table.

[b] Aerospace Studies N=5, not included in table.

[c] No college identification given by respondents N=44, not included in table.

When a and b are added to total, total faculty N = 1,614

TABLE II. Comparison Between Total Faculty and the 628 Respondents, by Academic Rank

Rank	Total Faculty Number	Total Faculty Percent	Respondents[a] Number	Respondents[a] Percent
Professors	446	29	183	29
Associate Professors	405	26	172	27
Assistant Professors	438	28	191	30
Instructors	266	17	79	13
TOTAL	1,555	100	625	100

[a] 3 cases not reporting

These criteria were chosen because the distribution of the total faculty on college affiliation and academic rank was known to the investigator. Further, these two criteria were considered to be important analytic variables in any study of professors. If differences exist among professors with respect to their satisfaction with academic life and their perceptions of the roles of college professors, etc., it seems logical to revise the sample of 628 on the basis of academic rank and college affiliation to make the sample correspond to the total faculty population on these criteria.

The original sample of 628 respondents was revised by removing some professors from the colleges of Agriculture, Education, and Engineering. Using a table of random numbers, sixty professors in these colleges with the rank of assistant, associate and full professor were purposively removed from the original sample of 628 respondents, reducing the sample for this study to 568.

This procedure was used in lieu of obtaining more respondents by additional mailings since the resources of this study made additional mailings impractical. Weighting the replies to the various questions in order to achieve representativeness by college affiliation and academic rank was more time consuming and involved; faced with depleted funds, a weighting procedure did not recommend itself.

Finally, the four respondents from Aerospace Studies were also dropped from the final sample of this study for computational purposes. Those respondents affiliated with the Ordinance Research Laboratory and the 44 respondents who did not reveal their college affiliation were included in the computations but will only be selectively treated in the general analysis where it is relevant to do so. The 44 respondents filled out the information schedule except for the question on college affiliation.

Analysis and Presentation of Findings

Data from the information schedules were coded by three coders and punched on IBM cards. Tabulations by age, college affiliation, academic rank, professional training, job mobility, tenure, occupational activities and other variables as they related to satisfaction and dissatisfaction were done. Statistical analyses appropriate for nominal and ordinal data were employed when applicable. Only differences that met or exceeded the 5 percent (0.05) level of significance will be cited in this report as significant differences.

Major emphasis in this report will be placed on the responses of the faculty members in the ten colleges of The Pennsylvania State University. Complete figures for all groups of faculty can be found in the tables within the main body of the report or in the tables in the appendixes. From all the information obtained, only those aspects have been selected which shed light on the objectives of this study.

In the analysis comparisons will be made with Matson's (48) research on the faculty of The Pennsylvania State University seventeen years ago when it seems relevant to the topic being discussed and where comparisons between the two studies shed light on changes that have occurred over time.

It should be noted that in some of the tables in this study the percentages do not add up to 100% due to rounding. Also, some of the totals do not add up to 100 since the category of "no answer" was not included in some of the tabulations.

CHAPTER 3

Description of the Occupational Activities of College Professors

This chapter is divided into three sections. The first section contains a discussion of the descriptive data concerning the professors' general professional and academic backgrounds. The second section treats the descriptive data gathered from the professors on their major professional activities at The Pennsylvania State University. The third section deals with the data gathered from the professors on their major professional activities at The Pennsylvania State University. The third section also deals with the data gathered from the professors describing the amount of time they spend on their various professional activities and the amount of time they normally spend per week at their professional duties.

Academic and Professional Information

Some indications of the academic and professional backgrounds of college professors at The Pennsylvania State University provide an informative background for the analysis to follow on the major professional activities of college professors and how they spend their time on these activities. This information may also shed some light on how "typical" faculty members of The Pennsylvania State University may be of their colleagues at other state-related universities.

Sex

As is generally reported in the professions, the majority of the respondents were men (89 percent).

Marital Status

The majority of college professors were currently married (89 percent). Another 2 percent reported themselves widowed or divorced, and 9 percent were single. Those faculty members married ranged from "just married" to 43 years married. Almost half (48 percent) of the sample had been married from one to fourteen years. About a third (32 percent) of the faculty had been married from 15 to 28 years, while a tenth (10 percent) fell into the 29 to 43 years married category. Another tenth (10 percent) did not reply to the question which is exactly the total (58) who reported themselves as single.

Age

These professors ranged in age from persons in their early twenties to those beyond the retirement age of 65 years. Those faculty members under 30 years of age constituted 17 percent of the sample. Over a third of the sample (35 percent) were in the 31 to 40 years of age category, with a fourth (25 percent) falling within the 41 to 50 years old category. Almost a fifth (18 percent) were 51 to 60 years of age and 5 percent were within the 61 to 67 years of age category. Well over one-half of the sample (52 percent) were under 40 years old. The median age for the total faculty in this sample was 40 years which is a bit younger than that reported nationally.

Types of Degrees Held

Present employment standards at universities require more often than not the earned doctorate as a prerequisite to faculty appointment. In practice, the situation is often varied with a variety of patterns of formal education completed on various faculties. The Pennsylvania State University seems to have done remarkedly well in staffing its faculty with professors with the coveted doctorate's degree over the past seventeen years. Almost three-fourths (71 percent) of the faculty members reported having a Ph.D. or D.Ed. About one-fourth (24 percent) held a master's degree and 5 percent held a bachelor's degree. Table III below shows a comparison of degrees held by this sample of professors with Matson's (48) sample in her study done seventeen years ago at the same university.

TABLE III. Comparison Between Degrees Held by the Present Sample and Matson's Sample

Degrees Held	Present Sample		Matson's	
	Number	Percent	Number	Percent
Bachelor's	28	5	31	6
Master's	138	24	433	62
Doctorate's	401	71	230	33
TOTAL	567	100	694	100

Table III indicates that The Pennsylvania State University has shown a marked improvement in professionally upgrading its faculty if the doctorate's degree can be cited as one index of professionalism. This rate of growth in the proportion of faculty members with doctorate's degrees also corresponds with other indices mentioned in Chapter 2 on this university's growth pattern. It also meets one aspect of the objectives of this study in that the comparison on degrees held today by the professors in this study with the degrees held by professors at the same university seventeen years ago aptly mirrors some of the changes that higher educational institutions and their faculties have undergone over time. This finding does not corresponds, however, to those reported in National Science Foundation's Report (53). The distribution of types of degrees held reported in the 1968 report was as follows: 37 percent held the Ph.D.; 27 percent held the master's; 30 percent held the bachelor's.

One reason for this discrepancy is that the National Register of Scientific and Technical Personnel covers all personnel in the country and only 36 percent reported in the register are employed by educational institutions.

Academic Training

It has been observed that employment by the same university one receives a degree from leads to a continuation of dependency, stagnation and/or academic provincialism among the faculty members. In short, the question of "faculty inbreeding" is an old one and one which has never been satisfactorily resolved one way or another. This study does not try to resolve the issue. Yet, one of the changes suggested in the literature on higher education is that there has been a tendency towards less "faculty inbreeding" among educational institutions. Table IV, below, compares the faculty members in the present sample according to where they received any one of their academic degrees with Matson's (48) sample.

TABLE IV. Comparison of Faculty Inbreeding Between the Present Sample and Matson's Sample

Degrees Granted At	Present Sample Number	Present Sample Percent	Matson's Number	Matson's Percent
The Pennsylvania State University	190	33	202	41
NonPennsylvania State University	378	67	294	59
TOTAL	568	100	496	100

As shown in Table IV, over the past seventeen years, The Pennsylvania State University has changed with respect to employing faculty members trained at this university. The figures in the table represent totals among the faculty members who received any one or all three academic degrees from the employing institution. As such, the figures are not a perfect comparison but they do indicate a tendency towards the changes suggested in the literature on "faculty inbreeding."

Information was also obtained from the respondents in this sample on the year in which they received their highest academic degree. Since almost three-fourths of the sample obtained a Ph.D., the approximate dates of degree conferal provide additional information on the academic backgrounds of this sample. Only 15 percent received their degrees before 1945 and 38 percent received their degrees during 1946 to 1960, the so-called "silent fifties." Over one-half of the respondents received their degrees from 1961 to 1968. The range in years stretched from 1926 to 1969, with the model category 1961 to 1964. The median category was 1960.

These figures indicate that this faculty is relatively young with respect to the time that they received their degrees. If so, they should be more "up to date" professionally in their discipline and more professionally oriented to the norm of professional advancement via publication. This question will be examined in the next section of this chapter.

Data was also gathered from the respondents concerning the university or college where they received their highest degree. This information was ranked combining Carter's (14) and Caplow and McGee's (13) methods of ranking colleges into a hierarchy of colleges and universities ranging from "Bush" to "Minor" to "Major" league institutions.[5] Excluding the "Bush" category, the faculty members of this study fell mainly into the "Minor" league classification. Well over one-half of the sample received their master's or doctorate's degree from "Minor" league universities (56 percent). A little over one-third (34 percent) of the respondents obtained either their master's or doctorate's degree from a "Major" league university.

The classification scheme is a very general one, yet it helps to summarize the data as well as indicate along with Table IV, page 27, that professional mobility still seems quite limited. That is, college professors seem to stay professionally at the level of the university they receive their degree. As has been generally reported in sociological literature on occupational mobility, upward mobility is still quite limited. This seems to be the case with college professors.

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[5] The "Major" league classification refers to schools like Harvard, Yale, etc., while the "Minor" league classification refers to schools like Maryland, Pittsburgh, Penn State, etc.

By examining the information obtained on job mobility of the faculty members in this sample, it can be seen that the respondents are fairly stable at this university. That is, almost three-fourths of the faculty members have had only one other position besides their current position at the time of this sample. In fact, close to one-half (41 percent) have only been employed at their present position. The number of jobs held ranged from "just employed at this university" to 13 (2 percent). The median was 1 = just employed at current position. The mean was 2 with 32 percent averaging two jobs including their current position at the time of this sample.

About one-half (46 percent) of those who held another academic position before coming to The Pennsylvania State University came to their current position from another "Minor" league university. A little over one-fourth (28 percent) came to The Pennsylvania State University from "Major" league institutions. Those who came from outside of the academic environment represent 10 percent of the sample and the remainder (16 percent) came from "Bush" league colleges.

While this data remains consistent with the information on occupational mobility provided above, it is interesting that 16 percent of the sample who held positions before their current position at The Pennsylvania State University moved up professionally from less prestigious colleges. Whether this trend will increase as state-related universities are pressed to expand their faculties seems doubtful. Rather, it appears that more faculty members will be recruited from "Major" league institutions, if possible, by schools like The Pennsylvania State University.

Table V, page 30, compares the faculty members in the sample according to the actual number of years they have been employed in their own professional field. The largest proportion (20 percent) of the faculty members have been employed in their professional field for 9 to 14 years. More than one-half (52 percent) of the faculty members have been employed in their professional field less than 14 years. The average (mean) number of years employed was 15 and the median number of years employed was 13 with the range stretching from one to 45 years employed in their professional field.

Faculty members in this sample have been typically affiliated with their present position for 5 years. This lends objective support to their generally favorable appraisals of satisfaction with their colleagues and the university as a whole (see Chapter 6). Over one-half (54 percent) of the faculty members have been members in their present department for 6 or less years. Almost one-third (27 percent) have been members in their present department from 7 to 15 years and nearly one-fifth (19 percent) have been affiliated with their present department from 16 to 41 years.

TABLE V. Distribution of the Sample by Number of Years in Professional Field

Number of Years	Number	Percent
1 - 2 years	42	7
3 - 4 years	60	11
5 - 8 years	80	14
9 - 14 years	112	20
15 - 18 years	82	15
19 - 24 years	68	12
25 - 28 years	44	8
29 - 33 years	32	6
34 - 45 years	37	7
TOTAL	557	100

mean = 15 years

Since there is such a difference in the number of years among faculty members affiliated with their current department with about one-half (46 percent) of the faculty members affiliated for 7 to 41 years, information on other factors usually associated with faculty stability should reflect the general impression that these faculty members are relatively "comfortable" with their positions at The Pennsylvania State University. One such index is the proportion of faculty members who have tenure. As an index of professional establishment, obtaining tenure represents one of the achievements in the academic career ladder to success. It was found that over one-half (52 percent) of the faculty members reported having tenure. Forty-eight percent of the faculty members had not obtained tenure at the time of the study.

Another feature of academic life at The Pennsylvania State University which represents another index of success but in a different fashion is the proportion of faculty members who are or have been members of the faculty senate. This body ostensively represents the governing body of the university in addition to the trustees. While the faculty members in this study seem relatively "stable" at this university, membership in the faculty senate seems somewhat restricted given the size of this faculty. Only 10 percent of the faculty members in this study are presently members of the faculty senate. Moreover, only about one-fourth (26 percent) of the faculty members have ever been members of the faculty senate. Discussions with faculty members during the pretest interview stage of this study as well as data reported later in this report indicate that this small proportion of the faculty members represents a kind of "privileged club" with membership in it offered not necessarily by democratic processes as they are generally understood by the lay public.

Controlling by college affiliation does not indicate much of a change in the above proportion. Only the colleges of Arts and Architecture (19 percent), Business Administration (18 percent), Human Development (16 percent), and Earth and Mineral Industries (13 percent) have more than one-tenth of their faculty members as current members in the faculty senate.

Controlling on academic rank, a clearer picture can be obtained concerning the "elite" structure of the faculty senate. About one-fourth (23 percent) of the full professors compared with 6 percent of the associate professors are currently members of this governing body. Ninety-seven percent of the assistant professors aren't currently members of the senate. Further, 60 percent of the full professors have been members of the senate while 81 percent of associate professors and 95 percent of the assistant professors have not ever been members of the faculty senate. Degrees earned shows about the same relationship on these variables as academic rank. Both of these control variables are statistically significant at the .001 level. Age represents a somewhat similar relationship to membership in the faculty senate. Those faculty members ranging from 41 to 55 years of age hold significantly more (.03) memberships proportionately in the faculty senate than the age range below or above them.

Major Professional Activities

This section deals with the data concerning the major professional activities engaged in by the professors as members of The Pennsylvania State University faculty. The respondents were asked to reply to the specific questions on the basis of their "normal" yearly activities even though they may not be doing at the time of the study what they normally do during the academic year.

To ascertain whether faculty members divide their time on different activities and to test Knapp's (41) hypothesis on the fractionalization of college professors' roles, faculty members were asked if they held an appointment in more than one department. The majority (80 percent) of the faculty members did not hold more than one departmental appointment. Further, only one-fourth (25 percent) of the faculty members are currently employed outside their academic position. As an indirect test of Knapp's (41) hypothesis that professors are engaged in many mutually exclusive activities today whereas prior to World War II, most of the activities professors engaged in were complementary, one would expect that the proportion of professors employed in activities outside their academic position would be much larger if Knapp (41) and others

(Gusfield, 26) are correct in their assumption that college professors are less loyal to their place of employment and more oriented towards employment and professional advancement outside of the university structure.

Faculty Participation in Organized Groups

Table VI compares the distribution of faculty members on two indexes of local and professional involvement. It is interesting to note that proportionately more of the faculty members in this sample belong to one or more civic, fraternal or community organizations (60 percent), while about only one-fourth (26 percent) of the faculty members belong to the local chapter of the AAUP.

TABLE VI. Comparison of Membership in Community Organizations with Membership in the Local Chapter of the AAUP

	Number	Percent
Number of local organizations belonged to		
None	224	40
1 - 2	222	39
3 - 6	109	19
7 - 15	13	2
TOTAL	568	100
Membership in local AAUP		
Belong	144	26
Do not belong	424	74
TOTAL	568	100

The table also shows that 40 percent of the faculty members do not belong to any local civic organization.

Teaching Activities

When faculty members were asked whether they taught classes during a normal academic year, the largest proportion indicated that they taught during the academic year (94 percent) and only 6 percent indicated that they did not teach at all during the normal academic year.

With respect to teaching load, this sample of faculty members is almost evenly split. That is, 47 percent teach approximately one class per term and 43 percent teach approximately two classes per term. One-tenth of the faculty members report more than two classes taught per term. Two classes per term is the normal class load for full-time faculty members at The Pennsylvania State University. The mean teaching load per term for the sample was one class per term or about three hours and forty-five minutes per week.

Table VII shows the distribution of faculty members by the level of courses they teach during the academic year. A greater proportion (84 percent) of the faculty members teach undergraduate courses than those who teach graduate level courses (69 percent). There is about one-fifth (17 percent) of the sample who teach extension or continuing education courses. This figure appears high or low depending upon whether a state-related university is viewed as an institution which provides service to the lay public of the state. The percentage seems to almost fit The Pennsylvania State University's image as a service oriented institution.

TABLE VII. Distribution of Faculty Members by Level of Courses Taught During Academic Year

			Do not teach this level		Total	
Level of Courses	Number	Percent	Number	Percent	Number	Percent
Undergraduate	480	84	88	16	568	100
Graduate	390	69	178	31	568	100
Continuing Education	91	17	477	83	568	100

It should be noted that about one-third of the faculty members in this sample do not teach graduate level courses at all. This finding does not appear surprising in ~~lieu~~ of the norm in academia that graduate level courses are taught by the more experienced faculty.

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When the sample is controlled on college affiliation, just about the same proportion as the total faculty sample teach at the undergraduate level in all ten colleges. In the colleges of Education and Agriculture, more than one-fourth (27 percent in Education) and one-third (34 percent in Agriculture) do not teach at the undergraduate level. Liberal Arts and Business Administration faculty members teach proportionately more at the undergraduate level than the total faculty.

The faculty members in the colleges of Business Administration, Earth and Mineral Industries, Education, Liberal Arts, and Science report greater proportions of teaching courses at the graduate level than the total faculty with the faculty members in the college of Earth and Mineral Industries reporting the highest proportion of faculty members teaching at the graduate level (91 percent).

There are three colleges in which the faculty members report teaching less proportionately at the continuing education level than the total faculty. These are Health and Physical Education, Human Development, and Science.

Controlling on rank, 77 percent of the full professors teach at the undergraduate level compared with the total faculty in the sample. Both instructors and assistant professors report teaching less proportionately at the graduate level than does the total faculty. There are no differences on teaching continuing education courses when rank is examined compared with the total faculty.

When one considers the literature on the roles of college professors (Barzun, 5), it is not surprising that 83 percent of the faculty members in this study reported that they currently are engaged in some kind of research. Table VIII, page 35, summarizes the findings on the research activities of the faculty members in this sample.

Aside from the fact that the norm of research seems so accepted by the faculty, it is also interesting that 60 percent of the faculty members report collaborating with other faculty members in their research activities. Perkins (54) and others have reported similar findings with respect to the changing trend toward joint research projects and away from individualized research. It is also noteworthy that of those faculty members engaged in research, 68 percent are involved in one to three projects and about one-fifth (19 percent) are currently involved in four or more research projects.

This finding is surprising in ~~lieu~~ light of the finding reported above that 94 percent also report that they teach during the academic year. Moreover, the greatest proportion of faculty members report that they teach mostly undergraduates. In one sense, teaching and research seem to be the major activities of the college professors reported in this study. Considering Knapp's (41) hypothesis concerning the fractionalization of the college professor's major role activities, the twin norms of research and teaching overwhelmingly reported by the faculty members as their major activities do not seem to support Knapp's hypothesis.

To actually test Knapp's hypothesis, faculty members in this study were asked to rank the frequency with which they related their research to teaching.

TABLE VIII. Reported Research Activities, by Total Faculty

	Number	Percent
Currently engaged in research		
Yes	469	83
No	99	17
TOTAL	568	100
Currently collaborating with others on research		
Yes	340	60
No	228	40
TOTAL	568	100
Number of research projects currently engaged in		
None	103	18
One	116	20
Two	143	25
Three	100	18
Four	38	7
Five or more	68	12
TOTAL	568	100

TABLE IX. The Frequency with which the Faculty Members Relate Their Research to the Classes They Teach, by Total Faculty

	Level of Courses Taught			
	Undergraduate[a]		Graduate[b]	
Frequency	Number	Percent	Number	Percent
Rank Order				
1 Not at all	47	8	56	10
2 Very infrequently	77	14	20	4
3 Occasionally	190	33	96	17
4 Frequently	142	25	172	30
5 Very frequently	44	8	102	18
No response	68	12	121	21
TOTAL	568	100	568	100

[a] mean rank = 3.1

[b] mean rank = 3.5

As shown in Table IX, over one-half (55 percent) of the faculty members do not relate their own research to the undergraduate classes they teach. The mean scale value for relating their own research to their undergraduate teaching was 3.1. Less than one-tenth (8 percent) of the faculty members relate their own research to the undergraduate classes they teach very frequently. With respect to undergraduate teaching, the research activities of the faculty members in this sample do not seem to be used by the faculty members to enrich their undergraduate classes (Knapp, 41).

Comparing faculty members by college affiliation with the degree to which they relate their own research to the undergraduate courses they teach, faculty members in the colleges of Science and Health and Physical Education are proportionately greater than the other eight colleges' faculty members in the not at all to occasionally categories.

Cross tabulating by academic rank reveals one major difference in the degree to which faculty members relate their own research to the undergraduate courses they teach. Instructors seem to relate their research to undergraduate teaching to a lesser degree than do professors in the higher ranks, but the difference was not significant.

While Knapp (41) does not distinguish between levels of instruction, it may be that faculty research is more closely related to graduate teaching than undergraduate teaching given the nature of the type of research requested by various sponsoring agencies of the faculty (Lapp, 44; Ridgeway, 56). Specialized research of a highly technical nature conducted by the faculty would seem more likely to enrich graduate level instruction than undergraduate courses since one major purpose of graduate education is to train graduate students in the research process (Jencks and Riesman, 39). Almost one-half (48 percent) of the total faculty relate their research frequently or very frequently to the graduate courses they teach. Only one-tenth (10 percent) do not relate their research to graduate instruction. The mean scale value for relating their own research to graduate teaching was 3.5, which suggests that at the graduate level research and teaching are complimentary activities.

Since graduate courses are usually taught by senior faculty, it seems logical to assume that there should be a closer relationship between research and graduate teaching. Table X, below, presents significant evidence that the research activities of the faculty members filter into the graduate level classroom more often during the year for professors in the associate and full professorial ranks. As academic rank increases, the frequency with which faculty members relate their research to graduate teaching increases.

TABLE X. Distribution of the Frequency Faculty Members Relate Their Research to the Graduate Courses They Teach, by Rank

	NAA[a]		VI[b]		O[c]		F[d]		VF[e]		Total	
Rank	N	%	N	%	N	%	N	%	N	%	N	%
Instructor	63	76	2	2	11	13	6	7	1	1	83	15
Assistant Professor	58	36	5	3	25	16	56	34	17	11	161	28
Associate Professor	33	21	5	3	28	18	53	34	38	24	157	27
Full Professor	18	11	9	5	39	23	56	34	45	27	167	29
TOTAL	172		21		103		171		101		568	99

[a] Not at all

[b] Very infrequently

[c] Occasionally

[d] Frequently

[e] Very frequently

f_{x}^{2} = 138.46; d. f. = 12; sig. at .001

To further explore the research activities of the respondents, they were asked a series of questions on the amount and type of their productivity as professionals within their field of specialization during their academic careers. Table XI, below, compares different levels of professional productivity as reported by the faculty members in this study.

TABLE XI. A Comparison of Levels of Professional Productivity as Reported by Respondents

Type of Professional Productivity	Number	Percent
Papers delivered at professional meetings[a]		
None	129	23
1 - 3	147	26
4 - 6	89	16
7 - 12	80	14
13 - 24	65	11
25 - 35	23	4
36 - plus	35	6
TOTAL	568	100
Papers published in professional journals[b]		
None	102	18
1 - 3	128	23
4 - 6	92	16
7 - 12	88	15
13 - 24	78	14
25 - 35	46	8
36 - plus	34	6
TOTAL	568	100
Books written or edited[c]		
None	374	66
1	88	15
2	52	9
3 - 6	46	8
7 - plus	8	1
TOTAL	568	99
Membership in professional associations		
None	28	5
1	45	8
2 - 3	236	41
4 - 6	205	36
7 - plus	54	9
TOTAL	568	99

[a] mean = 9.76; median = 4.5

[b] mean = 13.35; median = 10

[c] mean = .88; median = 3

Considering total professional productivity, this faculty seems productive. When it is remembered that these faculty members have been employed in their professional field on the average of 15 years and that the mean number of papers and books published during their academic career is 14.2, a rough estimate of productivity per year averages about one publication per year. This productivity rate does not appear to be too incongruent with national figures. One set of figures available, Crane's (16), seems to indicate that the faculty members in this study favorably compare with faculty members at other universities. What is suprising is that there appears to be no discrepancy between the self-reported norms concerning the strong research orientation of these faculty members and their actual research output or productivity. That is, most college faculty members report that they are currently engaged in research and the results with respect to output substantiate the respondents' report.

In order to obtain an outside check on the professional productivity of the faculty members in this sample, the investigator tabulated all the citations for the total faculty (N = 1,555) listed in Research Publications[6] for the last three years by college affiliation. Table XII, page 40, summarizes this data for the ten colleges over the past three years.

Interestingly enough, this outside check indicates that the average productivity per faculty member over the past three years is about that of the average number of papers published and reported by the sample during their academic career. The evidence indicates that average productivity as reported in the information schedule by the faculty members closely coincides with the average productivity reported in the Research Contributions catalog put out by the university. This finding remains almost constant even when both academic rank and college affiliation are sorted on in the tabulations. It also adds additional support for the claim made by the investigator on the representativeness of this sample of the total faculty (N = 1,555).

Time Budgets of College Professors

This section deals with the information gathered from the faculty members in the sample concerning how these faculty members spend their working hours. Several attempts have been made in the past to measure faculty work loads (Stecklein, 63). The most common measure used is the credit hour (Bunnell, 12). The assumption behind this is

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[6] This catalog is published by The Pennsylvania State University each year summarizing research and other contributions made by the faculty. Se Chapter 2 for a description of this procedure.

TABLE XII. A Comparison of Faculty Productivity by College for the Last Three Years, by Total Faculty

College	Number	Percent
Agriculture	1,012	21
Arts and Architecture	65	1
Business Administration	125	3
Earth and Mineral Industries	801	17
Education	301	6
Engineering	491	10
Health and Physical Education	59	1
Human Development	79	2
Liberal Arts	917	19
Science	969	20
TOTAL	4,819	100

mean = 481.9, median = 809, average per faculty over three years = 3.1

that there is a constant ratio between credit hour load and total faculty work load. As Bunnell (12) and others have pointed out, the major problem with this measure is that the faculty does not think the assumption behind the credit hour index is a valid one. To avoid this problem, this study made an effort to gather information on the percent of time faculty members usually spent during the academic year on a list of various activities typically associated with college professors (Diekhoff, 19). Moreover, as was reported in the second section of this chapter, data on the amount of class hours spent teaching was also used to obtain information on the work load of the faculty.

Actual Use of Time

Responses to an item in the information schedule indicated how these faculty members usually divide their work time during the academic year. A yearly figure was requested since it was felt that term fluctations would average themselves out if the question was put in the context of a yearly estimate. For example, summer term at The Pennsylvania State University when the majority of the faculty members do not engage in their usual activities and the university enrollment is down is a prime case in point. Table XIII, page 41, presents a distribution of the relative percentage of time faculty members in this sample usually spend during the academic year.

TABLE XIII. Percent of Time Professors Usually Spend on Occupational Activities during an Academic Year (N = 568), by Total Faculty

Occupational Activities	Percent of time No time	1-25%	26-50%	51-75%	76-100%	Total
Teaching undergraduates	15	41	28	12	4	100
Counseling and advising undergraduates	27	73	-	-	-	100
Teaching graduate students	29	62	9	-	-	100
Directing graduate students' theses	36	62	2	-	-	100
Sponsoring extracurricular student activities	79	20	.5	.5	-	100
Departmental committee meetings	15	85	-	-	-	100
College committee meetings	47	53	-	-	-	100
University level committee meetings	71	29	-	-	-	100
Basic research activities	36	50	12	2	-	100
Applied research activities	49	37	10	2	2	100
Consulting with government or industry	66	34	-	-	-	100
Writing professional articles	28	69	3	-	-	100
Local community service activities	65	35	-	-	-	100

Overall, the majority of faculty members in this sample report spending about one-fourth of their time on counseling and advising undergraduates, departmental committee meetings, and writing professional articles. Only three activities engaged three-fourths of some of the faculty members' time. These were teaching undergraduates, basic research, and applied research. It is also interesting to note that only teaching undergraduates and applied research activities engaged 5 percent of the faculty members as full-time duties. Almost one-third (28 percent) of the faculty members spent more than 25 percent of their work time during the academic year on teaching undergraduates.

Overall, instructional activities of one type or another consume most of the time faculty members usually spend during the academic year. Yet, the class hour load for the total faculty amounts to about one class per term as reported in the second section of this report.

Summary Table XIV, below, presents the data in a different form. As can be seen from Table XIV, undergraduate instructional activities typically take about one-third of the faculty members' time spent during the academic year. Eckert and Stecklein (20) report similar findings.

TABLE XIV. Summary Table of Average Time Spent on Occupational Activities during Academic Year

Occupational Activities	Mean	Median	Mode
Teaching undergraduates	37	29	20
Counseling and advising undergraduates	7	5	5
Teaching graduate students	17	14	20
Directing graduate students' theses	29	9	10
Sponsoring extracurricular activities	6	4	5
Departmental committee meetings	4	3	5
College committee meetings	3	1	1
University level committee meetings	3	1	1
Basic research	18	14	10
Applied research	21	13	10
Consulting	5	4	5
Writing	9	9	10
Local community service	4	3	5

Preferences in the Use of Time

When asked which of the activities they engage in would they spend more time at and less time at if they had a choice, over one-half (58 percent) would like to spend more time doing research. A little over one-fourth (29 percent) would spend more time at teaching.

Research seems to be an important element in the orientation of this faculty towards their occupational career.

Conversely, when asked to identify those activities which they would like to spend less time at, more than one-half (56 percent) specified committee or administrative activities. About one-fifth (21 percent) reported that they would like to spend less time teaching. None of the faculty members reported that they would like to spend more or less time at "character building" activities. Again these findings parallel Eckert and Stecklein (20) as well as add some evidence to Knapp's (41) assertion that "character building" as a major professorial activity has sort of vanished from the range of occupational activities professors consciously engage in.

An effort was made to determine how many hours the faculty members in this study currently invested in their professional duties. The results of this question are presented in Table XV, below.

TABLE XV. Hours Worked Per Week Performing Professional Duties, by Total Faculty

Hours per Week	Number	Percent
10 - 20	9	2
21 - 30	21	4
31 - 35	15	2
36 - 40	92	16
41 - 49	75	13
50 - 54	153	27
55 - 59	37	6
60 - 65	122	22
66 - 70	18	3
71 - plus	21	4
No answer	5	1
TOTAL	568	100
Tri Modal Categories		
40 hrs./wk.	86	15
50 hrs./wk.	149	27
60 hrs./wk.	108	19

mean = 49.8, S.D. = 12.57

median = 49 hrs./wk.

mode = 50 hrs./wk.

As shown by this table, the majority (62 percent) of the faculty members in this study report working more than 50 hours per week at their professional duties. While the median was 49 hours worked per week at their professional duties, the distribution was tri-modal. Professors typically spend at their professional duties 40 hours (15 percent), 50 hours (27 percent), or 60 hours (19 percent) per week. As reported by other research (Brace, 11) most college teachers put in overly long hours extending beyond the "normal" 40 hour week.

Summary

The data described in this chapter indicate that the sample of faculty members in this study appears to be more representative of the total faculty at The Pennsylvania State University than had initially been reported by college affiliation and academic rank. Professional productivity as reported by the respondents in the sample closely mirrors the productivity index used which was compiled from a source different from the respondents' self report although the comparison was rather gross with respect to the time periods considered.

The Pennsylvania State University college professors in this sample also closely resemble their colleagues in other state-related universities with respect to sex, age, educational training, and the types and levels of academic positions they hold. They also seem quite similar to professors at other public (Morison, 50) universities with respect to their two main duties of research and teaching. These occupational activities consume most of their working time.

The faculty members in this study are probably also like other faculty members in universities elsewhere with respect to how they spend their time at their different occupational activities, their academic work load, and the number of hours they put in per week on their professional duties. Membership in professional organizations for the faculty members in this study parallels the other professions (Volmer and Mills, 68). One exception may be the high proportion of the faculty members in this study who have earned their doctorate's degree compared with national figures (Cartter, 14). As reported in this chapter, there has also been over the past seventeen years a change on this characteristic of professional attainment by members of this university which reflects national trends.

While teaching remains the major occupational activity among the faculty members in this study, it was also found that research activities are more attractive to the faculty members. Faculty members would spend more time at research activities if they could, conforming to the general impression that research has grown in importance among college professors since World War II (Kerr, 40).

Moreover, it was found that research activities are highly valued by the faculty members in this study, and it was found on various indexes that the faculty as a whole does appear to be very productive (Crane, 16). The research productivity of the faculty members when compared with the length of time they have been engaged in their professional field was found to be somewhat typical (Hirsch, 34).

One tentative finding was the evidence which somewhat supported the contention made by Knapp (41) and others that some of the activities which professors engage in may be mutually exclusive in the sense that there appears to be very little correspondence between some of the occupational duties college professors engage in. It was found that professors in this study do not significantly relate the research they are engaged in to the undergraduate courses they teach. The data suggest that there is less of a relationship between teaching at this level and research than is commonly believed by many persons who assume that to be a teacher requires one to be a researcher. Significant evidence was found, however, which suggest that teaching at the graduate level and faculty research are related activities. As academic rank increases, the frequency with which the faculty relate their research to graduate teaching increases. While not a totally unexpected finding, the complimentary relationship between graduate teaching and research suggests caution should be exercised when this controversial issue is discussed.

CHAPTER 4

College Professors' Appraisals of Changes Occurring in Their Professional Roles Within the Context of the University

During the past six decades higher education has undergone considerable changes both in its internal organization and its relationship with its external environment (Rudolph, 59). Quite recently, colleges and universities appear to be changing even more rapidly than they have in the past (Perkins, 54). Although it has been commonly assumed that the attention paid to higher education by the mass media concerning student unrest, faculty teach-ins, etc., reflects some of the changes occurring on campuses today, aside from demographic data, it is difficult to find systematic evidence concerning changes in higher education from the faculty's perspective.

This chapter considers the data gathered from the faculty members in this study on changes in the university and in their professional activities which they have noticed since they first became faculty members of The Pennsylvania State University. Since a longitudinal study could not be done, the present analysis of changes perceived by the faculty members in this study is mainly cross-sectional in focus. By controlling on academic rank and the year of graduation along with college affiliation, the findings approximate the time dimension needed in discussing changes which have occurred in the professional role activities of professors and in the university. Age was not selected as one of the control variables in this respect since this faculty seemed relatively homogeneous with respect to age as already noted in the previous chapter.

Certain changes which have occurred at The Pennsylvania State University during the past seventeen years have already been noted (Matson, 48). Several other general changes which are more recent in origin should also be mentioned. The university in the past few years has established a new College of Medicine. It has added 46 majors since 1960. In five years from 1960 to 1965, the university has conferred as many degrees as it had in the first eighty-five years of its existence. Between 1960 and 1968, the number of bachelor's degrees conferred has increased about 60 percent. Most of the bachelor's degrees the university conferred during the early sixties were granted to people in nontechnical fields compared with its first ninety years when most degrees were granted in agriculture, engineering, and the sciences.

In summary, several changes have occurred at this university over a long and short period of time. Whatever the reasons for such changes, it seems important to know that they occurred previous to the discussion on how the faculty members themselves view various changes occurring since they first became employed by this university.

Overall Reported Changes in the University

The greatest change which has occurred since these faculty members became employed by this university is that academic staff and support staff has increased more proportionately than any of the items of change which the respondents were asked to rank on a five point scale ranging from "large decrease to large increase." Fifty-three percent of the faculty members rank academic staff size as increasing since they became members of the university. Fifty-four percent also rank non-academic staff size as increasing. Moreover, 21 percent of the faculty members rank academic staff size as largely increasing since they became employees of the university. Proportionately, none of the other types of changes on the scale are ranked this high. A large increase in "administrative red tape" was mentioned by 18 percent of the respondents. Thirteen percent of the respondents report a large increase in the quality of the faculty since they became employees of the university. Interestingly, on the Pearson product moment correlation technique, increasing quality of faculty and increasing academic staff size are highly[7] but negatively related. Increasing "administrative red tape" and increasing academic staff size are also negatively related. Table XVI, page 48, shows the distribution of change on various indexes that have occurred since these faculty members have become employees of the university.

Reported Changes in the Roles of College Professors

When the items on the information schedule are divided into changes concerning the role activities of college professors and changes occurring in the organizational context of the university, a somewhat different picture results. For the total faculty, 50 percent report an increase in their committee activities. Almost three-fourths (72 percent) report no change in their character building activities. Almost one-third (31 percent) also report a decrease in their teaching loads since they became faculty members of this university. Table XVII, page 49, summarizes the degree of change which has occurred in the occupational role activities for the total faculty of this study.

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[7] The correlation coefficient = .65

TABLE XVI. Departmental Changes Since College Professors First Became Faculty Members

Type of Change	Large Decrease N	Large Decrease %	Decrease N	Decrease %	No Change N	No Change %	Increase N	Increase %	Large Increase N	Large Increase %	Total N	Total %
Teaching loads	33	6	132	25	269	51	86	16	11	2	531	100
Amount of funds available for research	9	2	52	10	188	36	222	42	56	11	527	101
Quality of work facilities (equipment, office space, library, etc.)	7	1	44	8	150	28	258	48	84	15	543	100
Quality of graduate students	2	1	23	4	216	41	237	45	48	9	526	100
Quality of undergraduate students	1	-	15	3	230	44	238	46	34	7	518	100
Quality of faculty	1	-	28	5	171	32	272	50	70	13	542	100
Administrative red tape	3	1	22	4	240	45	176	33	98	18	539	101
Academic staff size	1	-	21	4	119	22	286	53	116	21	543	100
Non-academic staff size	1	-	20	4	179	33	289	54	51	9	540	100
Influence of federal government on the researcher	4	1	19	4	319	61	144	27	39	7	525	100
University's role in public policy making	3	1	22	4	369	73	107	21	5	1	506	100
Faculty's role in developing the moral character of students	18	3	75	15	370	72	52	10	2	-	517	100
Faculty committee loads	2	-	27	5	239	45	228	42	41	8	537	100
Faculty's role in university level policy making	20	4	58	11	347	65	102	19	5	1	532	100

TABLE XVII. Reported Changes in the Occupational Roles of College Professors Since They First Became Faculty Members

	Decrease		No Change		Increase		Total N	
Type of Change	N	%	N	%	N	%	N	%
Teaching loads	165	31	269	51	97	18	531	94
Faculty's role in developing the moral character of students	93	18	370	72	54	10	517	91
Faculty committee loads	29	5	239	45	269	50	537	95
Faculty's role in university level policy making	78	15	347	65	107	20	532	94
Influence of federal government on the researcher	23	4	319	61	183	35	525	92

As shown in Table XVII, the faculty members of this study report changes in several areas of their activities which correspond to changes discussed by Ruml and Morrison (60). The reported decline in teaching load for the total faculty is significant (.05) and parallels reports from others (Gusfield, 26; Halsey, 30; Knapp, 41).

Differences Among Colleges

When differences between colleges are examined on changes in the teaching load of the total faculty only two colleges report significant changes. In the college of Business Administration, 70 percent of the faculty members report a decrease in teaching load. The faculty in the college of Human Development report an increase in teaching load (41 percent) while the other eight colleges report no change.

With respect to character building duties, all of the ten colleges report no change but a tendency towards a decrease in the faculty's role in developing the moral character of students appears in the data.

Well over one-half of the faculty members in the ten colleges report an increase in faculty committee activity. This finding is consistent with the one reported for the total sample in this study. Moreover, when asked to list what they felt were the most significant committees they have been a member of, the average number for the faculty members is one significant committee. However, 41 percent of the faculty members also report that they have not been members of any significant committees.

On the role of the faculty members in university level policy making, most of the faculty members in the ten colleges report that there have been no changes. This finding corresponds to the contention made by the author in the previous chapter on total faculty participation in the faculty senate and supports in part the findings of the Cox Commissions' Report (15) on the lack of total faculty participation in the formulation of university policy.

Faculty members in the ten colleges report very little change one way or another regarding the influence of the federal government on their research activities. This is surprising considering the current attention given to faculty involvement with contract research (Ridgeway, 56).

Differences Among Rank and Year of Graduation

When the data on changes in the role activities of college professors are examined on the two control variables of academic rank and year of graduation, similar and significant differences occur on each variable used in this study as approximate indexes of time.

As academic rank increases, teaching load and character building duties decrease. The same relationship holds when year of graduation is controlled for. Well over one-half of those professors who graduated before 1950, report a significant decline in their teaching load. One-third of the faculty members who graduated during this same period report a decrease in their character building activities. Knapp's (41) assertion on these changes appears to be valid.

No differences exist on academic rank and year graduated when compared with the total faculty on the reported increasing faculty committee activities. Nor are there any differences between academic rank and year graduated with the proportion of the total faculty reporting no change in the faculty's role in university level policy making.

Only full professors (45 percent) and those faculty members who graduated before 1940 (43 percent) report an increase in the federal government's influence on their research activities. Well over one-half of the instructors, assistant, and associate professors report no change on this index. Similar findings were obtained on those professors who graduated from 1955 to 1968.

Reported Changes in the Organizational Context of the University

On the nine items used to examine whether changes have occurred in the organizational context of the university, the faculty members of this study report increases in eight of the indexes and no change in one. As Table XVIII, page 51, shows, the university's role in public policy making (73 percent) has not changed since the

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TABLE XVIII. Reported Changes in the Organizational Context of College Professors Since They First Became Faculty Members

Type of Change	Decrease		No Change		Increase		Total N	
	N	%	N	%	N	%	N	%
Amount of funds available for research	61	12	188	36	278	53	527	93
Quality of work facilities	51	9	150	28	342	63	543	96
Quality of undergraduate students	16	3	230	44	272	53	518	91
Quality of graduate students	25	5	216	41	285	54	526	93
Quality of faculty	29	5	171	32	342	63	542	95
Academic staff size	22	4	119	22	402	74	543	96
Non-academic staff size	21	4	179	33	340	63	540	95
Administrative red tape	25	5	240	44	274	51	539	95
University's role in public policy making	25	5	369	73	112	22	506	89

faculty members in this study became affiliated with the university. When it is remembered that the average number of years these respondents have been members of their department at The Pennsylvania State University (mean = 7 years), the changes reported by the faculty members correspond to those noted in the beginning of this chapter and in Chapter 3.

As shown in Table XVIII, academic staff size has increased proportionately more than any of the other items. However, when academic staff size is correlated with quality of the faculty using the Pearson product moment technique, the relationship between these variables is high but negative.

Differences Among Colleges

Most of the faculty within the ten colleges report an increase in the amount of funds available for research in the same proportion as the total faculty. Two exceptions occur. About one-half of the faculty members within the colleges of Arts and Architecture and Human Development report no change in the amount of funds available for research. The college of Human Development is relatively recent and has been concerned with internal reorganization problems during the past five years which could account for their response pattern. The faculty members in the college of Arts and Architecture traditionally have not been the recipients of research funds nor have they been research oriented compared with other colleges.

On all of the other items measuring organizational context, there are no differences in the amount of change occurring when college affiliation is controlled and compared with the responses of the total faculty members in this study.

Differences Among Rank and Year of Graduation

When the data on changes in the organizational context of the university are examined on the two control variables of academic rank and year of graduation, similar and significant differences occur within each control variable. Yet, overall changes reported by the total sample of faculty members in the organizational context of the university on the organizational items measuring change hold even when rank and year of graduation are controlled.

The significant differences which occur within academic rank and year of graduation on the nine items tapping changes within the organizational context of the university are differences similar to those reported in the section on changes in the various role activities of college professors.

Associate and full professors report proportionately more increase in the eight items listed by the total faculty on changes in the organizational context in the university than do instructors or assistant professors. Instructors (74 percent) and assistant professors (74 percent) are significantly different than associate (55 percent) and full professors (61 percent) with respect to the university's role in public policy making. The former tend to see no change on this item whereas one-fourth of the associate and full professors see an increase on this item.

Findings similar to those on academic rank occur when the data on changes in the organizational context in the university are examined by year of graduation. Well over one-half of the faculty members in this sample who graduated before 1950, report increases on the eight items mentioned by the total sample. As the year of graduation increases to the 1960's, increases on these eight items are not so noticeable.

Again, only on the ninth item concerning changes in the university's role in public policy making there are no significant differences when year of graduation is controlled for. There appears to be a tendency for faculty members who graduated before 1950, to see an increase in the university's role in public policy making but it is not significant.

Summary

An attempt was made in this chapter to examine the information obtained from the faculty members in this study regarding changes that have occurred in either their roles or in the organizational context of the university.

By examining the changes reported by the total faculty in the sample on a cross-sectional basis using academic rank as a control variable, several significant differences were noticed between associate and full professors compared with instructors and assistant professors. Professors in the two highest ranks reported greater decreases in teaching loads and character building activities than did professors in the lowest two academic ranks. All ranks reported an increase in faculty committee activities and no change in faculty policy making at the university level.

Upon examining these reported changes in the roles of college professors, controlling on year of graduation, similar findings were obtained to those on academic rank. Professors who graduated before 1950, closely resemble associate and full professors in their reports on changes in the role activities of college professors.

When changes in the organizational context of the university were examined on academic rank and year of graduation, similar findings resulted as have been noted on changes in the role activities of college professors. The only item which did not significantly vary by either academic rank or year of graduation was the university's role in public policy making

Finally, when college affiliation, academic rank, and year graduated are controlled for, there appears to be very little difference on the two types of changes delineated in the chapter when compared with the reports of the total faculty members in the sample.

Overall, teaching loads have decreased along with the faculty's role in character building. There has been an increase in the faculty's committee activities along with an increase in the influence of the federal government on faculty research activities. There has been no change observed by the faculty members in their role in policy making at the university level.

With respect to changes in the organizational context in the university, academic and non-academic staff size has shown the greatest increase as reported by the faculty members of this study. The only decrease noted was the university's role in public policy making.

CHAPTER 5

The Fractionalization of College Professors' Role Activities

Some writers on the roles of college professors have consistently implied that a lack of clarity and consensus of the duties of professors have been characteristic of this profession for quite a long time (Wilson, 71; Caplow and McGee, 13; Knapp, 41). Most of these authors seem to agree that the roles of professors are somewhat ambiguously or conflictually defined within the university structure. Yet, various authors analyze this situation from a different perspective and consequently attribute the feature of ambiguity in the roles of professors to seemingly different factors.

Jencks and Riesman (39) attribute the lack of clarity in the professors' roles to the trend towards the professionalization of higher education. Stroup (65) seems to feel that the trend towards bureaucratization is the crucial factor. Kerr (40) suggests that the disparate activities and curriculums characteristic of modern universities contribute to the lack of cohesion not only among faculty members but also among students and administrators.

Recently, Knapp (41) has suggested that the traditional role of college professors has become fractionalized into three seemingly mutually exclusive activities which appear to have very little relationship to one another. For example, research activities may not carry over and enrich teaching duties or vice versa. Knapp (41) suggests that the lack of consensus over what college professors' duties are or should be may be due to the traditional value held in some quarters today that professors should perform several roles which may have become mutually exclusive in character. Moreover, he points out that character building role duties traditionally expected of college professors are in most universities nonexistent and that teaching and research duties do not go together as they once did prior to World War II.

This chapter is devoted to determining whether or not the major occupational activities of the faculty members at this university are mutually exclusive having little correspondence to one another.

Have the character building activities of college professors become passive in nature? Are college professors expected just to passively set a good example in character and conduct rather than actively inculcate morals or values in their students? Has there been a clear decline in this feature of college professors' roles as Knapp (41) suggests?

Further, has there been a progressive decline in teaching enthusiasm among professors as Riesman (57) suggests? Conversely, have research duties become so important to college professors that they represent the main line to employment and promotion for professors as Caplow and McGee (13) point out? Are instructional duties competing for prestige among college professors and administrators at a severe disadvantage with research duties (Barzun, 5)?

Finally, is there a relationship between research and instructional activities such that these activities mutually reinforce and enrich one another? Or, are these primary duties traditionally associated with one another probably disparate activities difficult to incorporate into one role bundle?

There were several questions included on the information schedule designed to throw more light on the above issues from the point of view of college professors at a large state-related university. It should be noted that information presented in this chapter by no means provides conclusive evidence on the issue of fractionalization.

College Professors' Assessments of Important Role Activities

In order to ascertain which of the roles college professors considered of primary importance, the faculty members in this study were asked to rate various activities usually associated with college professors in the order of importance to them. It was assumed that by requesting the respondents to rank the various activities in their order of importance to them, one could obtain a status profile of roles based on the expectations professors held for themselves and perceived others hold for them. Table XIX, page 56, shows how the professors in this study rank the various activities associated with professorial roles in the order of importance to them and their effectiveness in their performance of these activities. A ranking on effectiveness was also included to gain some information on the amount of personal involvement they have concerning their various occupational duties.

As shown by Table XIX, the vast majority of respondents in this sample rate undergraduate teaching as the most important duty they perform (85 percent). In fact, with the exception of professional writing, well over three-fourths of the faculty members in this study report instructional activities at both the undergraduate and graduate levels as the most important activities they engage in. Basic research (68 percent) and applied research (64 percent) represent the next most important activities to professors in this study.

As reported in the previous chapter, professors in this study do not consider administrative activities to be important (45 percent)

TABLE XIX. Importance of the Professional Duties and Effectiveness in Performance of These Duties, by Total Faculty

Duties	IMPORTANCE						EFFECTIVENESS					
	Not Important		Uncertain		Important		Not Effective		Uncertain		Effective	
	N	%	N	%	N	%	N	%	N	%	N	%
Basic research	70	13	109	19	386	68	116	21	198	35	246	44
Applied research	96	17	104	19	363	64	101	18	160	29	298	53
Obtaining research funds	137	24	172	31	254	45	204	36	215	38	142	25
Professional writing	41	7	95	17	430	76	69	12	206	36	291	51
Consulting	209	37	155	27	202	36	142	25	182	33	235	42
Committee work	172	30	245	43	150	27	94	16	243	43	229	41
Administrative duties other than committee work	253	45	175	31	137	24	125	22	247	44	189	34
Public service to the state/ communities	113	20	213	38	241	42	148	26	226	40	187	33
Training graduate students	43	8	77	14	441	78	51	9	178	32	331	59
Undergraduate teaching	35	6	49	9	481	85	31	6	126	22	405	72
Graduate teaching	52	9	68	12	441	79	47	9	174	31	332	60
Counseling and advising students	35	6	92	16	440	78	35	6	178	32	352	62
Influencing the moral development of students	125	22	178	32	258	46	98	18	315	57	138	25

even though they engage in relatively very little committee duties. The data seems to indicate that teaching enthusiasm has not declined as suggested by Riesman (57).

Almost one-half (46 percent) of the faculty members rank influencing the moral development of students as important to them. On the surface this finding does not represent a clear decline in this aspect of college professors' activities. However, almost one-third (32 percent) of the faculty members feel uncertain concerning the importance or nonimportance of this activity. Only committee work (43 percent) and public service (38 percent) activities represent a greater proportion of the faculty members in the uncertain category.

Exploring further the perceptions faculty members report on the various activities they engage in, the vast majority of the respondents feel more effective at undergraduate teaching and other associated instructional activities than any of the others listed in the table. Over one-half of the respondents (53 percent) felt more effective at applied research. Significantly, influencing the moral development of students and obtaining research funds are activities which the faculty members do not feel very effective at.

As an index of the level of faculty members' personal involvement in various role activities, the low degree of effectiveness that faculty members feel about obtaining research funds coincides with Astin and Holland's (3) findings. ~~Further,~~ However, that the faculty members feel not effective at obtaining research funds does not coincide~~s~~ with the findings reported in Chapter 3 on ~~low~~ their amount of professional productivity. Using degree of effectiveness as an index of their involvement in various role activities indicates that the faculty members in this study are not involved to a high degree in character building activities. This finding also corresponds to those found in the chapter on the changes in the roles of college professors. Older faculty members report a significant decrease in their character building activities as measured by year of graduation and academic rank.

In summary, it appears that character building activities have clearly declined as Knapp (41) suggests, and it also appears that the faculty members feel that this is an important duty to perform but they are not very involved in it. The data also suggest that there has not been a progressive decline in the faculty members' enthusiasm for instructional activities as Riesman (57) indicates. However, the empirical evidence suggests that research activities are strongly competing with instructional activities in not only the degree of importance faculty members attach to research duties but also in the degree of personal involvement that they have in basic and applied research activities.

The above findings are quite similar when college affiliation, academic rank, and tenure are controlled for with respect to the dimensions of importance and effectiveness concerning the various role activities of college professors reported in this sample.

Actual Role Behaviors of College Professors

Recognizing that the reports of the faculty members concerning the relative importance of various occupational activities to them may be biased insofar as faculty members are traditionally expected to consider some of their duties to be more important than others, the information schedule contained other items to gather information of the role fractionalization of college professors' roles.

Some of the other items were reported in Chapter 3 concerning the work activities of the faculty members in this study. To briefly review them, 83 percent of the faculty members reported being currently engaged in research. Ninety-four percent of the faculty members also reported teaching during an average year. Almost one-half of the faculty members taught (42 percent) one class per term and 44 percent were currently involved in more than three research projects at the time of this study.

It seemed that there was a relationship between instructional duties and research activities insofar as the faculty was currently involved in both roles to a very high degree. Yet, when asked how often they relate their research to the undergraduate and graduate classes they taught, research and instructional duties did not seem to be mutually reinforcing activities. The average response for the faculty on both of these questions was in the "occasionally" category.

The data reveals additional evidence that teaching activities are being superceded in importance by the faculty research activities (Riesman, 57). As was reported in Chapter 3, 58 percent of the faculty would like to spend more time on their research activities while only 29 percent would prefer spending more time in teaching. Only faculty members in the college of Health and Physical Education deviated from this response pattern. These faculty members would like to spend more time at teaching. None of the faculty members in this study reported preferring spending more or less time on character building duties. This finding demonstrates that Knapp's (41) hypothesis on the clear decline of this role seems to be a valid one.

Reported Criteria Used in Evaluating Professorial Activities

Caplow and McGee (13) have demonstrated in their study on college professors' mobility that research activities have become so important that they represent the main line of promotions for professors in universities today. Gusfield (26) has also suggested a similar hypothesis in describing changes that have occurred in higher education over the past two decades.

Faculty members in this study were asked to rank in the order of importance the criteria used in their department in evaluating the faculty for salary increments and promotions. Table XX, below, shows the criteria used as reported by the faculty members in this study.

TABLE XX. Criteria Used in Departments for Evaluating Faculty for Salary Increments and Promotions

Criteria	Percentages					
	NI[a]	LI[b]	U[c]	MI[d]	VI[e]	N
Teaching performance	8	14	19	40	19	566
Publications	2	3	15	32	48	566
Honors received	3	8	29	41	19	566
Student evaluations	21	23	37	17	2	566
Other job offers received	11	9	32	27	21	566
Services to lay community	27	30	30	12	1	564
Sponsoring student activities	28	30	32	10	-	566
Ability to secure research grants	6	11	23	36	24	566
Influence of colleagues	9	14	36	35	6	565
Ability to get along with colleagues	8	14	33	39	6	566
Research potential	5	9	41	32	13	560
Committee work	14	7	66	12	1	353
Overall administrative ability	14	20	37	26	3	566

[a] Not important

[b] Little importance

[c] Uncertain

[d] Moderately important

[e] Very important

Almost one-half of the faculty members report publications as very important criteria used in their departments in evaluating faculty members for raises and promotions. Only 5 percent report publications of little importance or no importance. Moreover, only 15 percent were not sure whether publications were or were not of importance. Almost one-fourth (24 percent) of the faculty members also reported that their ability to secure research grants was a very important criterion also. Teaching performance (19 percent) was ranked in importance in about the same proportion as research potential (13 percent).

Student evaluations (2 percent) and sponsoring student activities (less than 1 percent) were reported as almost nonexistent very important criteria in evaluating faculty members for raises and promotions in their departments.

It is interesting to note that while the faculty had reported a definite increase in their committee activities that only 13 percent felt that committee work was of any importance in evaluating the faculty. Moreover, the majority of the faculty members (66 percent) were not sure how important committee work was in the evaluation of their performance for raises and promotions in their departments.

In summary, the empirical evidence reported in this section demonstrates that there has been a decline in the character building activities of college professors' roles. Strong evidence also appears demonstrating that there has been a decline in teaching activities as an important dimension of the roles of college professors in this study. Finally, the data also demonstrates that research activities are considered the most important type of roles college professors can engage in if they wish to achieve promotions and salary increments in their department.

The Relationship Between College Professors' Roles

To determine whether there was a relationship between the various activities college professors spent their time on during an average academic year, the items used to gain information on how the professors spent their time were also used to create four amount of time spent in role activities indexes.

The four amount of time spent in role activities items were constructed in the following way. Correlation coefficients were obtained between all the items in the information schedule where the faculty members were asked to indicate the amount of time that they normally spent during the academic year on thirteen different occupational activities ranging from instructional to community service activities. A correlation matrix was developed. After examining the correlation coefficients between the thirteen items, it was found that the correlation coefficients between amount of time spent teaching undergraduates and counseling and advising students were high enough to justify the construction of an index from these items which were called undergraduate instructional activities. The same procedure was used on the rest of the activity items. The teaching graduate students and directing graduate students' theses items were used to construct an index called graduate instructional activities. Time spent in department, college, and university committee work were also combined into an index designated as administrative activities. Time spent in basic research, applied research, and professional writing activities were combined into an index called research activities.

The reliability coefficients for each activity index, the mean interitem correlation on all the activity indexes, and correlations among the four different activities indexes were computed using a library program of The Pennsylvania State University Computation Center.

The mean interitem correlation was negative at (-0.026), indicating that there was a negative relationship among the four activities indexes. When the correlation coefficients among the different activities indexes were examined, it was found that the highest negative correlation was between the undergraduate instructional index and the research index (-.493). The same relationship was found between the undergraduate instructional index and the graduate instructional index (-.314). The correlation coefficient for the graduate student instructional index and the committee work index was (.303) the highest among the four.

This data seems to indicate more additional evidence that teaching and research activities are not related. It seems probable that these role activities traditionally associated with one another may not be as mutually enriching to one another as a surface delineation of the roles of college professors would indicate. At least they were reported by the faculty members in this study to be important activities to them. Yet, on a number of measures teaching and research activities do not appear to be related either by self report of the faculty members in this study or by correlational analysis of percent of time spent by the faculty members at these activities.

Summary

By examining the information gathered in this study on the issue of the role fractionalization of college professors' activities, the overall impression is that the major activities of these professors do appear to be fractionalized as suggested in the literature.

It seems that character building activities have clearly declined as an important aspect of college professors' role activities. Professors do not seem to be actively engaged in this type of duty nor do they want to spend any time on character building duties.

The evidence also suggests that the teaching activities of the college professors in this study are not considered important activities to them when promotions and raises are involved. While teaching duties are reported to be important activities by these professors, research duties are clearly more important to the professors when amount of time spent and preferences in the use of their time is considered.

Although teaching and research have been traditionally described as mutually reinforcing activities, the evidence presented in this

chapter indicates on several measures that these activities may be mutually exclusive activities. That is, instructional activities seem to have very little relationship with research activities. Moreover, there is suggestive evidence that the faculty members realize that instructional activities and research activities are not necessarily related to one another in terms of obtaining raises and promotions within their departments.

CHAPTER 6

College Professors' Appraisals of Their Occupational Roles

There are many factors which affect the orientations that professionals in general have concerning their occupational roles (Hofstadter and Hardy, 36). Some researchers have suggested that the training professionals are exposed to as neophytes is crucial in determining the orientations that professionals have of the role activities (Becker and Carper, 7). It has also been suggested that the organizational context in which professionals are employed (Gamson, 22) has a significant bearing on the professional's orientation to his occupational activities as well as the degree of satisfaction these activities provide the professional (Eckert and Stecklein, 20).

Several questions in the information schedule sought to find out the effects some of these variables have on the role perceptions of college professors and their satisfaction and/or dissatisfaction with various facets of their activities. Some relate to particular features of college professors' work. Others relate to the organizational context of the university. Some of the items also sought general appraisals of their experiences as faculty members and the type of satisfaction engaging in this occupational role provides.

College Professors' Perceptions of the Expectations Others Have of Their Occupational Roles

The pressure to publish exerted by various sources in the academic community has been a well discussed phenomenon (Hagstrom, 28). Faculty members in this study were asked to identify on a four point scale those sources which exerted pressure on them to publish as a general expectation held concerning their occupational duties. Table XXI, page 64, shows the degree to which various others concerned with higher education expect professors in this study to publish.

As shown by Table XXI, the professors in this study report four sources of great pressure expecting them to publish. One-fifth (20 percent) of the faculty members perceive the greatest source of pressure to publish as coming from their college administrators. Substantial to great pressure exerted on college professors in this study to publish is expected of them by college administrators (54 percent).

TABLE XXI. Distribution of Various Sources Expecting College Professors to Publish

	Percentages				
Sources of Pressure	No Pressure	Moderate Pressure	Substantial Pressure	Great Pressure	N
University administration	21	32	30	17	548
College administration	14	32	34	20	552
Department chairman	12	39	33	16	553
Department colleagues	32	39	22	7	550
Professors themselves	24	29	29	18	550
Students	84	13	2	1	550
Public	80	14	5	1	546

Almost one-fifth (18 percent) of the pressure to publish is exerted by the professors themselves. Further, almost one-half (47 percent) of the faculty members report that substantial to great pressure to publish is exerted by the professors themselves. Since this finding does not vary by college affiliation, it seems likely that these professors have been socialized since graduate school to the role orientation of professional publication as an index of their commitment to their profession.

Department chairman (16 percent) and the university administration represent the other major sources of great pressure exerted on the faculty members to role expectation of publishing. About one-half (49 percent) of the faculty members report that department chairman and university administrators (47 percent) exert substantial to great pressure on them to publish.

Significantly, students and the lay public are not perceived by the faculty members as holding any great expectation that they publish. Eighty-four percent of the faculty members report no pressure exerted from the students that they publish. The vast majority of the faculty members (80 percent) also report no pressure exerted on them by the public to publish.

Several writers have suggested that professional colleagues are influential in determining the orientations that professors have toward their occupational duties (Academesis, 2; Barzun, 5; Crane, 16; Hagstrom, 28). The data in Table XXI indicates that this is not necessarily the case for the faculty members in this study. Almost three-fourths (71 percent) of the faculty members report no or moderate pressure exerted on them by their departmental colleagues to publish.

As reported in the previous chapter, the faculty members in this study perceive instructional and research activities to be the most important roles that they perform. Committee duties and character building activities were not perceived as important or effective role activities for these professors. Very little variation occurred by college affiliation in these findings on the college professors' perceptions of their roles and the expectations others have of their various role activities.

One interesting finding was obtained in this study which indicates that there may be a high degree of consistency between the perceptions these professors have of their occupational duties and the expectations others have of their duties. When asked to report whether or not their conception of a fair day's work for a fair day's wage differed from others which they are likely to interact with as they perform their occupational duties, the following distribution as shown in Table XXII resulted.

TABLE XXII. Differences on Work Expectations as Reported by Faculty Members

	Yes		No		Don't Know		Total	
	N	%	N	%	N	%	N	%
Administration	67	12	173	31	325	58	565	101
Department chairman	55	10	352	62	160	28	567	100
Your colleagues	82	15	320	56	166	29	568	100
Your undergraduate students	81	14	132	23	354	63	567	100
Your graduate students	46	8	221	39	295	53	562	100
The lay community	178	31	92	16	298	52	568	99

As shown by the above table, the faculty members' conception of their work day does not differ from the department chairman's. Well over one-half (62 percent) report no difference. About the same proportion (56 percent) report that their conception on work does not differ from their colleagues.

Significant differences occur between the faculty members' conception of their work day and the conception of administrator, undergraduate and graduate students have of the faculty's work day. Well over one-half of the respondents report that they don't know whether their conception of their work day differs from that of the administration (58 percent), and/or their undergraduate (63 percent) and graduate students (53 percent).

This finding may indicate that the faculty members are not very well acquainted with the expectations that the administration, their undergraduate and/or their graduate students hold on their occupational activities.

Major Areas of Job Satisfaction and Dissatisfaction As Reported by College Professors

Studies by Kornhauser (43), Eckert and Stecklein (20), and others suggest that college professors' satisfaction with their professional duties is strongly affected or conditioned by the occupational duties they perform and the organizational context in which the professors reside.

To find out what faculty members considered to be the major satisfactions associated with their occupational duties, the respondents were asked to rank on a five point scale their degree of satisfaction or dissatisfaction on forty-one items covering most of the features of their occupational duties and those of the organizational structure in which professors carry out their occupational duties. This procedure was the direct result of the pretest experience of the author where it was found that upon asking professors how satisfied or dissatisfied they were with their career thus far, the overwhelmingly majority of the pretest respondents reported a high degree of satisfaction with their profession. Thus, it was decided to break down the role activities of college professors and the features of the organizational context into forty-one items which the respondents were asked to rank according to the degree of satisfaction or dissatisfaction with each. This was done in order to uncover any particular areas of satisfaction or dissatisfaction professors had either with their duties or with the organizational context in which they conducted their roles.

Other items were also included in the information schedule to further check on the degree of satisfaction or dissatisfaction professors have about their occupational duties or the organizational context of the university. These items will be reported in the analysis of this section of the report.

Overall Reported Satisfaction

On an open ended question asking the faculty members to list their greatest source of personal satisfaction since they became a college professor, well over one-half (59 percent) of the total faculty listed instructional duties as their greatest source of personal satisfaction since they became college professors. Teaching undergraduate students was reported as the greatest source of personal satisfaction by more than one-third (39 percent) of the faculty members. One-fifth (20 percent) of the faculty members reported teaching and directing graduate student activities as their greatest source of personal satisfaction. Only one-tenth (11 percent) of the faculty members reported research activities and another one-tenth reported that none of their activities had so far provided them with any satisfaction. Table XXIII, below, reports this distribution.

TABLE XXIII. Distribution of Greatest Source of Reported Personal Satisfaction for College Professors, by Total Faculty

Source	Number	Percent
Teaching undergraduate students and student appreciation	221	39
Teaching and directing graduate students	113	20
Research activity and professional recognition	61	11
Vocational/service activities	25	4
Interpersonal relationships with colleagues	49	9
Personal rewards and money	41	7
None	58	10
TOTAL	568	100

When the responses of the total sample are compared with the responses of the faculty members to this question controlling on college affiliation, the general distribution reported above for the total faculty members in the sample is quite similar. Approximately one-half of the faculty members in all of the ten colleges report that instructional activities have provided them with their greatest source of personal satisfaction. Table XXIV, page 68, summarizes the distribution of types of personal satisfaction by college affiliation.

As shown in Table XXIV, some differences appear between colleges on the greatest source of personal satisfaction. Less than one-fourth (23 percent) of the faculty members in the college of Science report that their duties involving them with undergraduate students provide them with their greatest source of personal satisfaction. From about one-half (43 percent) in the college of Liberal Arts to about three-fourths in the colleges of Health and Physical Education (64 percent) and Art and Architecture (71 percent) report undergraduate instructional activities as their greatest source of personal satisfaction during their careers.

TABLE XXIV. Distribution of Greatest Source of Reported Personal Satisfaction by College

Source	Teaching undergraduates & student appreciation		Teaching graduates		Research activity		Vocational & service activity		Inter-personal relations		Personal rewards		None		Total N	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Agriculture	27	37	14	19	11	15	4	5	7	10	6	8	4	6	73	13
Art & Architecture	15	71	-	-	-	-	1	5	-	-	3	14	2	10	21	4
Business Administration	9	53	2	12	1	6	-	-	1	6	1	6	3	18	17	3
Earth & Mineral Industries	10	31	5	16	4	13	2	6	2	6	3	9	6	19	32	6
Education	16	40	12	30	3	8	4	10	3	8	1	2	1	2	40	7
Engineering	32	43	12	16	9	12	2	3	7	9	4	5	8	11	74	13
Health & Physical Education	14	64	1	5	-	-	2	9	-	-	2	9	3	14	22	4
Human Development	11	34	8	25	2	6	3	9	3	9	4	13	1	3	32	6
Liberal Arts	54	46	23	20	9	8	2	2	11	10	11	10	7	6	117	21
Science	19	23	22	27	15	19	1	1	9	11	3	4	12	15	81	14
Ordinance Research Laboratory	2	13	1	7	4	26	2	13	1	7	-	-	5	33	15	3
No college affiliation given by respondents	12	27	13	30	3	7	2	5	5	11	3	9	-	-	44	8

Faculty members in the colleges of Science (19 percent), Agriculture (15 percent), Earth and Mineral Industries (13 percent), and Engineering (12 percent) report greater proportions of faculty members receiving their greatest source of satisfaction from research activities.

These findings are not surprising considering the fact that these colleges have been engaged in more research than the other colleges have.

When rank is examined, the distribution of sources of personal satisfaction approximate those sources reported by the total faculty in the sample. Table XXV, page 70, reports how faculty members by academic rank report the greatest sources of personal satisfaction since they became college professors.

As shown in Table XXV, the vast majority of professors in all academic ranks report that instructional activities have provided them with their greatest source of personal satisfaction since they became college professors.

There also appears in Table XXV, an inverse relationship between rank and satisfaction derived from undergraduate instructional activities. Over one-half (53 percent) of the instructors report this role activity as providing them with their greatest source of personal satisfaction compared with one-third (33 percent) of the full professors. Further, there also appears to be a direct relationship between academic rank and graduate student instructional activities as the source of greatest personal satisfaction. Five percent of the instructors, 15 percent of the assistant professors, 21 percent of the associate professors, and 29 percent of the full professors report that their graduate level of instructional activities provided the greatest source of personal satisfaction to them since they became college professors.

Not much difference is reported by academic rank on research activities as the greatest source of personal satisfaction. About the same proportion of professors in each academic rank compared with the total faculty report research activities as their greatest source of personal satisfaction since they became college professors.

Reported Satisfaction with University

Irrespective of their college affiliation and academic rank, the faculty members in this study seem quite satisfied with the organizational context of the university. When asked if they would recommend the university to a colleague of theirs looking for a position, approximately one-third (29 percent) of the faculty members would highly recommend the university. Sixty percent would recommend it, but with reservations. Table XXVI, page 71, reports the distribution of the faculty members on this item.

TABLE XXV. Distribution of Greatest Source of Reported Personal Satisfaction, by Academic Rank

Sources	Teaching undergraduates & student appreciation		Teaching graduates		Research activity		Vocational & service activity		Inter-personal relations		Personal rewards		None		Total N	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Instructor	42	53	4	5	7	9	5	6	6	8	6	8	9	11	79	14
Assistant Professor	64	39	25	15	17	10	6	4	15	9	17	10	19	12	163	29
Associate Professor	60	39	33	21	19	12	6	4	10	6	8	5	20	13	156	28
Full Professor	55	33	48	29	18	11	8	5	18	11	10	6	10	6	167	29
No response															3	-

TABLE XXVI. Distribution of the Faculty Members' Recommendation of the University as a Place to Work

Recommendation	Number	Percent
Definitely not recommend it.	9	2
Probably not recommend it.	33	6
Undecided.	20	4
Recommend it, but with reservations.	341	60
Highly recommend it.	165	29
TOTAL	568	100

Two other items were used to measure the faculty members' degree of satisfaction with the university as a place to carry out their professional duties. The respondents were asked to rank to what extent the university lived up to its initial employment agreements. They were also asked to rank whether they felt that in obtaining promotions and raises to what extent their professional ability to do their job was considered by their department. Table XXVII, below, and Table XXVIII, page 72, summarize the total faculty on these two measures. There were no differences reported by college affiliation.

TABLE XXVII. Extent University Lives Up to its Initial Employment Agreements

Extent	Number	Percent
Scale Value		
1 Never does	4	1
2 Frequently does not	43	8
3 Undecided	123	22
4 Usually does	322	57
5 Always does	71	13
TOTAL	563	101

mean = 3.7, S.D. = .8643

TABLE XXVIII. Consideration of Faculty Members' Ability to Do the Job for Promotions and Raises

Consideration	Number	Percent
Scale Value		
1 Not really considered	29	5
2 Not considered enough	63	11
3 Undecided	60	11
4 Usually considered	247	44
5 Always considered	168	30
TOTAL	567	101

mean = 3.6, S.D. = 1.148

As shown in Table XXVII, page 71, the vast majority of the faculty members (70 percent) report that the university usually or always lives up to its initial employment agreements with the faculty. The faculty members in this study when examined by academic rank report about the same degree of satisfaction on this measure. Moreover, there is a tendency for faculty satisfaction to increase on this measure as academic rank increases.

As reported on employment agreements, there is a tendency for satisfaction with the amount of consideration given faculty members' professional ability to do the job within their departments to increase with academic rank. Full professors report overwhelmingly (85 percent) that professional ability is usually or always considered compared with instructors (55 percent).

Table XXVIII, above, indicates that the faculty members in this study are satisfied with the degree to which their ability to perform professionally is considered in obtaining promotions and/or raises within their departments. Almost three-fourths (74 percent) of the faculty members report that their professional ability to do the job is usually or always considered. This finding does not differ when faculty members' responses are examined by college affiliation.

College Professors' Reported Satisfaction and Dissatisfaction On Five Dimensions Concerning Their Roles and the University

As reported in the beginning of this chapter, faculty members were asked to rate forty-one items concerning various areas of their professional duties and features of the university structure according to how satisfied or dissatisfied they were with these aspects of academia.

Upon inspecting the data, the overall impression is that the faculty members in this study are by in large satisfied with most of the facets of their roles and also with the university structure.

The forty-one items were grouped into five areas of satisfaction for analysis purposes. These areas were:

1. Amount of satisfaction with work conditions;
2. Amount of satisfaction with teaching activities;
3. Amount of satisfaction with research activities;
4. Amount of satisfaction with faculty influence;
5. Amount of satisfaction with the university structure.

An interitem correlation matrix was run on these items and the correlation coefficients were high enough to justify combining the items into these five areas of satisfaction. A complete analysis of variance reliability check was done and it was found that the non-stratified reliability was very high among the five areas (.910) indicating that degree of satisfaction in one area of concern to college professors is a reliable index of the degree of satisfaction in the other areas of concern to college professors.

The five areas of satisfaction also correlated quite highly with each other adding further evidence to the contention here that the degree of satisfaction college professors in this study have with one area of concern to them is a reliable index of the degree of satisfaction that they have with the other four areas of satisfaction.

Table XXIX, page 74, summarizes the amount of satisfaction college professors have with their work conditions. As shown by the table, the proportion of the faculty members satisfied on each item is approximately one-half or more. On one item, e.g., physical facilities of their department, about one-half (43 percent) of the faculty members express dissatisfaction. When college affiliation is controlled for, the faculty members in four colleges seem more dissatisfied on this item than the total faculty. Faculty members in the colleges of Art and Architecture (76 percent) and faculty members in the college of Liberal Arts (62 percent) appear the most dissatisfied with their physical facilities. Faculty members in Business Administration (53 percent) and Education (55 percent) also seem more dissatisfied with this item than the total faculty.

No significant differences were reported on academic rank on satisfaction or dissatisfaction with work conditions. On the general, reported dissatisfaction with the physical facilities in their department all academic ranks expressed the same proportion of faculty members dissatisfied.

When age is controlled, it appears that as age increases, satisfaction with work conditions increases, although the differences between age groups are not significant.

TABLE XXIX. Amount of Satisfaction with Work Conditions, by Total Faculty

Items	Percentages			N
	Dissatisfied	Uncertain	Satisfied	
With your present salary	28	4	67	568
With university medical insurance programs	10	8	82	568
With university policies regulating sabbaticals	20	26	54	568
With university policies regulating leaves of absence	12	33	55	568
With university policies regulating tenure	15	20	65	568
With university policies regulating promotions	32	21	47	568
With university policies regulating salary increases	33	22	45	568
With university policies regulating retirement benefits	26	18	56	568
With university policies regulating travel benefits	35	20	45	568
With physical facilities in your department	43	7	50	568
With secretarial and clerical services for faculty	35	8	57	568

Table XXX, page 75, summarizes the faculty members' feelings on satisfaction with their instructional activities. With the exception of two items, the majority of faculty members in this sample report being satisfied with their instructional activities. Cited by the highest proportion (85 percent) of faculty members is satisfaction with their teaching load. One reason for this figure is as was reported in Chapter 3, the low teaching load carried by the faculty members. Most of them taught one course per term. The two items which the largest proportion of faculty members were dissatisfied with was the degree to which teaching is considered on an equal basis with research for promotions and raises (40 percent) and the amount of recognition they receive from the administration for the teaching (29 percent). This finding supports those reported in the previous chapter on the decline of the importance of instructional activities as an avenue to promotions and raises. The faculty members in three colleges report proportionately dissatisfied on these two items than

TABLE XXX. Amount of Satisfaction with Teaching Activities, by Total Faculty

Items	Percentages Dissatisfied	 Uncertain	 Satisfied	N
With course scheduling of your classes	14	9	77	562
With the emphasis put on undergraduate teaching in your department	23	12	65	564
With the degree to which teaching ability is considered on an equal basis with publications and research in evaluating faculty for promotions and raises in your department	40	20	40	567
With the university sponsored opportunities available to you to engage in student-faculty activities other than classroom teaching	19	31	50	564
With your usual teaching load per term	10	5	85	560
With your opportunity to teach the courses you want to in your department	9	7	83	562
With your opportunity to help decide curriculum policies in your department	15	10	75	566
With the amount of recognition you receive for your work in the classroom by the administration	29	26	45	561
With the quality of your teaching in your courses	18	18	64	561

the total faculty. Professors in the colleges of Business Administration (53 percent), Education (59 percent), and Human Development (46 percent) seem more dissatisfied on the emphasis placed on teaching ability when promotion time comes around in their departments. Professors in the colleges of Liberal Arts (40 percent) and Business Administration (41 percent) represent a greater proportion than the total faculty who are dissatisfied with the amount of recognition they receive from the administration for the classroom activities.

No significant differences were found on this facet of satisfaction with teaching activities when academic rank is controlled for. Only instructors felt more dissatisfied on the amount of recognition they received from the administration for their classroom work. But, they did not differ significantly from professors in the other three academic ranks or proportionately from the total faculty. No differences on these items were observed when age was controlled for, either between age groups or between age and the total faculty members' responses on these items.

There were several items dealing with satisfaction on the research activities of the faculty members in this study. As shown by Table XXXI, page 77, the proportion of faculty members feeling satisfied with most of these activities is not as great as the proportion reporting satisfaction with teaching activities. Two items listed under research activities represent the smallest proportion of satisfaction for faculty members in this study. Less than one-third (29 percent) of the faculty members are satisfied with the university's recognition of different kinds of research other than "grantsmanship." Almost one-half (45 percent) of the faculty members are uncertain about how satisfied they are with their department's expectation concerning the amount of research funds they need to obtain to advance within their department.

Oddly enough, over one-half (51 percent) report satisfied with the amount of free time they have to engage in research or writing. Moreover, the majority of the faculty (60 percent) report being satisfied with the opportunity they have to do basic research.

In examining differences by college affiliation on the seven items concerned with research activities, the proportions between colleges remained similar to those reported for the total faculty. Only on recognition of different types of research by the university is there a difference in the percent of the faculty members reporting dissatisfaction. More than one-half (53 percent) of the faculty members in the college of Art and Architecture report being dissatisfied on this item.

Differences by academic rank are not significant on most of the items concerning research activities. The only significant difference reported by academic rank is on the amount of satisfaction the faculty members have with the university's recognition of different kinds of research. Both instructors and full professors report more dissatisfaction on this item than assistant or associate professors. Yet, no significant differences were found when age was examined on the amount of satisfaction faculty members received from the various research activities. The distribution for age was similar to that of the total faculty on these items.

TABLE XXXI. Amount of Satisfaction with Research Activities, by Total Faculty

Items	Percentages Dissatisfied	Uncertain	Satisfied	N
With the amount of government support you receive for your research activities	24	32	43	555
With your own academic profession's criteria for evaluating professional excellence	24	25	51	567
With the amount of free time you have to engage in personal research and/or writing	37	12	51	568
With the facilities and resources available to you that are necessary to conduct your research	24	17	59	567
With the university's recognition of different kinds of academic research other than grantsmanship	33	38	29	566
With your department's expectations of the amount of research funds obtained by faculty needed for promotions or raises	20	45	35	565
With your department's expectations regarding the type of publications needed for promotions or raises	22	30	48	567
With research and publications being considered on an equal basis with teaching ability in evaluating faculty for promotions or raises	31	22	46	565
With the opportunity you have to do basic research	21	19	60	564

Some writers have suggested that as universities become more bureaucratic, the degree of professional autonomy and influence professors exercise declines (Herge, 33; Kornhauser, 43). Table XXXII, below, reports data gathered from the faculty members on this fourth area of satisfaction.

TABLE XXXII. Amount of Satisfaction with Faculty Influence, by Total Faculty

Items	Percentages Dissatisfied	Uncertain	Satisfied	N
With your opportunity to influence departmental policy in faculty committees	17	15	68	567
With your ability to relate and use your research activities in your teaching	12	17	71	559
With your ability to coordinate and integrate all of the professional duties you engage in	25	21	54	568
With the federal government's regulations and policies concerning grants and contracts with faculty researchers	31	40	29	565
With promotions and raises being realistically related to the professional activities you were initially hired to perform	24	19	57	568

As can be seen in the table above with the exception of one item, the professors in this study report a high degree of satisfaction with the amount of influence they have in formulating departmental policy (68 percent satisfied). More than one-half of the professors report satisfied with the other items listed. About one-third (31 percent) report dissatisfaction with the federal government's regulations concerning grants and contracts with the faculty. It would seem that those colleges most concerned with research would account for this finding. The faculty members in the colleges of Science and Engineering report a greater proportion of their faculty as being dissatisfied on this item (43 percent and 42 percent) than the total faculty.

When academic rank was considered on this area of satisfaction, it was found that instructors were significantly less satisfied with their ability to influence department policy than the other three academic ranks. The same finding on academic rank occurred between instructors and the other ranks on the item concerning promotions and raises. Again, no significant differences were found on this area of role satisfaction when age was examined.

Table XXXIII, below, reports the amount of satisfaction the faculty members in this study report concerning some of the organizational characteristics of the university.

TABLE XXXIII. Amount of Satisfaction with Organizational Characteristics of the University, by Total Faculty

	Percentages			
Items	Dissatisfied	Uncertain	Satisfied	N
With the current relationship between teaching and research in your department	26	12	62	567
With the central administration's commitment to developing academic excellence among all departments	30	29	41	566
With faculty-administration communication on student-related problems	36	32	32	565
With the university's size lending itself to the type of professional activities you prefer to maintain during your career	13	20	67	566
With interdepartmental communication on educational policy	43	31	26	566
With the faculty senate's influence on university policy	33	39	28	567
With the expectations that the university administration has for evaluating faculty performance	29	46	25	566

As shown in the above table, this area of satisfaction seems to be the one area where the faculty members express more dissatisfaction on the items than any of the other areas reported. Almost one-half

(43 percent) of the faculty members report dissatisfaction with interdepartmental communication on educational policy. Over one-third (36 percent) report dissatisfaction with faculty-administration communication on student-related problems. One-third (33 percent) report dissatisfaction with the faculty senate's influence on university policy. Finally, almost one-half (46 percent) report they are uncertain about the university administration's expectations for evaluating their performance.

When the responses of the faculty members by college affiliation are examined, no great differences occur between the faculty members in the ten colleges and the proportion of the total faculty reporting dissatisfaction with interdepartmental communication. The faculty members in three colleges report greater proportions of their faculty dissatisfied with faculty-administration communication on student problems than the total faculty. The majority of the faculty in Art and Architecture (63 percent), over one-half of those in Liberal Arts (54 percent), and about one-half (44 percent) of the faculty in Earth and Mineral Industries report being dissatisfied on this item.

Faculty members in the colleges of Art and Architecture (44 percent), Earth and Mineral Industries (50 percent), and Liberal Arts (40 percent) report being dissatisfied with the faculty senate's influence on university policy.

When academic rank is examined concerning the amount of satisfaction professors in different ranks have on interdepartmental communication, all four ranks report a similar distribution on this item as the total faculty. There were no significant differences between faculty members in the four academic ranks. A similar finding occurred on the item concerning faculty-administration communication on student problems. Only more assistant professors were dissatisfied than the other ranks but the difference was not significant. A greater proportion of instructors report being dissatisfied on the amount of influence that the faculty senate has on university policy than did the other three ranks but the difference again was not significant. Assistant, associate, and full professors represented similar proportions as the total faculty in expressing dissatisfaction on this item. There was a slight tendency for more of the older faculty members to report greater satisfaction with the organizational characteristics of the university listed in Table XXXIII, page 79, but the differences between age groups was not significant on these items when age was controlled as check.

Summary

The overall impression gained from the information supplied by faculty members in this study concerning their conceptions of their occupational activities and the attitudes they express about them mirrors some of the general findings others have suggested about the roles of college professors.

It appears that the professors within the ten colleges perceive teaching and research duties as equally important activities. However, there seems to be a disparity concerning these activities for the faculty members in this study. While they report that the pressures exerted on them to do research, part of which comes from their own expectations, are great, the majority of these professors also report teaching activities as the greatest source of personal satisfaction during their professional career. Instructional activities were also ranked as the greatest single source of satisfaction for them compared with research activities, work conditions, and the two other general areas of satisfaction they were requested to rank by degree of satisfaction. Yet, they also report that they would prefer to spend more time at research duties. It appears that the expectations others have of the roles of college professors in this study are defined concretely in terms of research activities. Publications were mentioned as the most important criteria by the faculty members in this study for obtaining promotions and raises within all of the colleges and by all academic ranks.

One major area of dissatisfaction was found in this chapter. Faculty members reported more dissatisfaction with various features of the university organizational context than any other area.

However, the overall picture found on satisfaction by the various measures used was that the faculty members were highly satisfied with their occupational duties and with the university organizational structure regardless of college affiliation, academic rank, or age.

CHAPTER 7

Conclusions and Recommendations

The present study on faculty members at The Pennsylvania State University was designed to obtain some empirical information on the occupational roles of college professors in a large public university. Specifically, the study attempted to systematically obtain information in four areas pertaining to the occupational roles of college professors. These areas were:

1. Determining the major role activities of college professors at the university;
2. Describing the extent of role fractionalization within the occupational roles of college professors;
3. Obtaining information regarding possible changes in the roles of college professors and in the university from the point of view of the college professors;
4. Delineating how college professors perceive their occupational roles and the amount of satisfaction and/or dissatisfaction their roles provide.

Limited to faculty members in one university, it was essentially an exploratory study aimed at gathering information on the above objectives and discovering relationships that might be more intensively examined in later studies.

The information on the four objectives of the study was gathered from all the full-time faculty members at The Pennsylvania State University through mailed questionnaires as explained in Chapter 2. Major findings related to the four objectives of this study will be briefly reviewed in this chapter and some recommendations will be made concerning the roles of college professors and satisfactions or dissatisfactions associated with these roles.

Academic and Professional Information

Since this chapter gives essentially an overview of the data reported in the study, the following statements summarize only the major conclusions of the study which are limited in all cases to the faculty members of this university.

Conclusions concerning the academic and professional backgrounds of The Pennsylvania State University faculty members are:

1. The faculty members closely resemble college professors elsewhere with respect to sex, 89 percent were male, and median age was 40 years. The proportion that hold doctorate's degrees seemed higher (71 percent) than the national average.

2. One-third (33 percent) had received one or more degrees from The Pennsylvania State University. They typically received their highest degree in 1960.

3. Most of the faculty members received their highest academic degree from universities similar to The Pennsylvania State University.

4. The faculty members were stable with respect to occupational mobility in that most held one other academic position than their current one. They have been employed in their professional field on the average of 15 years.

5. Most of the professors have been employed in their present position on the average of 8 years and over one-half (52 percent) have tenure. Only one-tenth (10 percent) are currently members of the faculty senate and approximately only one-fourth (26 percent) of them have ever been members of the faculty senate. Most full professors are or have been members of the faculty senate while well over three-fourths (93 percent) of the assistant professors have not been or are not members of the senate.

Major Role Activities of College Professors

1. The majority of the faculty members (80 percent) are employed in one department and only about one-fourth (25 percent) are employed in any capacity outside of their academic duties.

2. Most of them teach during the year (94 percent) and most teach undergraduates (84 percent). This varies by college and rank. Faculty members in Science teach less undergraduates than other colleges and instructors teach more undergraduates.

3. Most faculty members report engaging in research (83 percent) and over one-half (60 percent) are involved in joint research projects. Most of them (68 percent) are currently involved in one to three research projects.

4. The average level of professional productivity as measured by number of papers (13) published during their academic careers appears similar to professors at other public universities.

5. Most of the time spend by the faculty members during the year is devoted to instructional activities with teaching at the undergraduate level consuming the largest percent of their time (37 percent) and research duties consuming about 39 percent of their time. Instructors teach more than the other academic ranks at this level.

6. The faculty members reported preferring spending more time on research duties than any other activity they engage in. They would also like to spend less time at committee duties and teaching undergraduates. They spend no time on character building activities, nor prefer spending any time in this type of duty.

7. Faculty members in this study seem to work about the same amount of hours per week on their professional duties as other professionals. The average amount of time spent per week on professional duties was 50 hours.

Changes in the College Professors' Roles and the University

Several conclusions were reached concerning changes in the roles of college professors and in the university structure:

1. The greatest change reported occurring by the faculty members was that academic staff size and support staff size has increased significantly since they became faculty members of this university. Yet, it was found that increases in academic staff size and increases in the quality of the faculty as reported by the faculty members were not positively related. That is, increasing the amount of professors does not necessarily increase the quality of the faculty according to the faculty members in this study.

2. Most of the professors reported that their teaching load had decreased since they came to the university and overwhelmingly in all ranks, reported a large increase in their committee duties.

3. Most of the older professors reported a clear decline in character building activities over time while the younger faculty members reported no change on this activity.

4. All the professors reported that there has been very little increase in the faculty's role in making university policy since they became associated with this university.

The Extent of Fractionalization of the Roles of College Professors

The findings concerning this objective suggest the following conclusions:

1. There has been little decline in faculty members' enthusiasm for teaching. Most of them reported that teaching is as important to them as research.

2. Overall, the two most important roles for the faculty are teaching and research with character building less important to them than the other activities they were asked about.

3. Most feel highly effective in teaching and research activities and not effective in committee work or character building.

4. While both teaching and research are perceived by the faculty members as two important duties, these activities do not seem to go together. That is, the faculty members do not appear to enrich the undergraduate classes they teach with their research activities. Measures on several indexes in the study support this conclusion and all the evidence suggest that Knapp (41) was correct in his contention that the roles of teaching and research appear to be mutually exclusive activities for college professors at the undergraduate teaching level but not at the graduate teaching level. Other evidence suggest that the character building role is a passive rather than active one for these professors.

5. Most of the professors seem to perform quite well under this condition of role fractionalization. One reason for this may be that they realize they are expected to teach and do research by their own standards and by the administration's standards. Yet, they appear to have very little knowledge about whether their perception of their roles is similar to that of their undergraduate or graduate students.

6. Objectively, concerning undergraduate education, the roles of college professors appear to be fractionalized but subjectively the professors don't view them to be nor do they feel any difficulty with the situation. At the graduate education level, fractionalization does not seem to be evident.

College Professors' Conceptions of Their Roles and the Amount of Satisfaction and/or Dissatisfaction Their Roles Provide

Contrary to some previous research done on the roles of college professors, there seems to be a high degree of agreement between how the professors perceive their occupational duties and what they perceive others expect of them in their duties. This consistency between college professors' perception and the expectations they receive from others probably accounts for the high degree of satisfaction professors report with their professorial roles and the organizational context of the university. It may also help to explain why there seems to be an increasing gap in the understanding of college students' recent exploits by professors and administrators. Professors and administrators seem to agree on the role expectations associated with the professors' duties. Professors report this in the study that although they feel teaching is important to them, they really don't know if their undergraduate and/or graduate students' expectations on their day's work is comparable to their own. To summarize the findings on college professors' attitudes concerning their roles:

1. Over one-half report that they are expected to publish to advance within their department. Evidence suggest that professors also feel it is necessary to publish to advance professionally in their discipline since they report as one of the greatest sources felt by them to publish as coming from themselves. Other sources of greatest pressure to publish comes from the college administration, department chairmen, and university administrators. Students and the public are not sources of pressure on the professors to publish.

2. Instructional activities are only moderately important within the department when professors are considered for raises and promotions.

3. It appears that professors are socialized to publish as a standard for evaluation and this expectation is supported in the university context of administrators.

4. College professors derive a great deal of satisfaction from their professional duties of research and teaching.

5. The greatest source of personal satisfaction for college professors comes from their instructional duties but this varies by college affiliation with Liberal Arts faculty receiving greater personal satisfaction and Science faculty less personal satisfaction from instructional duties than other faculty. Personal satisfaction derived from undergraduate teaching was found to be inversely related to academic rank.

6. Overall, college professors are satisfied with the organizational context of the university as a place to work. Only three areas within the university create any appreciable degree of dissatisfaction.

7. Faculty members generally report dissatisfaction with the amount of interdepartmental communication on educational policy irrespective of academic rank or college affiliation.

8. They also reported some frustration over faculty-administrative relations irrespective of rank and college affiliation. The faculty is dissatisfied with faculty-administration communication on student related problems. This suggests that the faculty may want more voice on what has been considered by professors up to the 1960's as an area of concern for just administrators. They also report dissatisfaction with the amount of influence the faculty senate has in shaping university policy. One reason may be that a large majority of the faculty members are not nor have ever been members of the faculty senate.

Recommendations

Since this study was exploratory, concerned with delineating as completely as possible the role structure of college professors and uncovering some possible relationships, it is suggested that to fully understand the role structure of college professors far more study must be given to the tentative findings suggested in this report.

Research should be directed specifically to exploring differences on the role activities of professors within colleges, by academic rank, and by the conceptions various types of professors have concerning their roles. Comparable studies on satisfied and dissatisfied faculty members should also be done to explore further the subtle differences which seem to occur among professors who report being satisfied in certain areas of their role activities and those who don't feel satisfied.

Studies of this type require the use of the personal interview method and also require a large expenditure of funds than was received to conduct this exploratory study. Personal interviews of faculty members can be directed at gaging the experiential features of the role structure of this profession to round out the general impressions reported in this study. Moreover, it appears that once access is gained, faculty members appear more informative and cooperative when interviewed than when asked to fill out a questionnaire.

Contrary to most suggestions, longitudinal type studies are not recommended to study the role structure of college professors. As most report satisfaction and most seem to stay in one or two universities of the same type, more interview types of cross-sectional analysis may be more practical and less time consuming and provide just as "valid" results as the longitudinal method even when studying changes. One reason for this suggestion is that it appears that only on some areas of the role structure of professors are there differences worth investigating. Further, academic rank seems to provide a valid index on several dimensions which require further study.

One such area is the relationship between "professorial" involvement in decision making on various levels within the university organizational context. This study reports some amazing disparities on the "elite" structure within the faculty on membership in the faculty senate and concerning level of courses taught. Further study on the hierarchy existing among faculty members directed at decision making activities and faculty influence within the department as the focus of study or within selected colleges or even within the university organizational structure would yield a wealth of information about who gets what, when and why, on several dimensions of activity.

Interview studies on the role images of professors at various academic ranks within and among colleges held by professors regarding their two most important occupational duties may help to identify some of the more cogent reasons why the disparity between their subjective assessment of important occupational duties (e.g., teaching), and the objective evidence of the importance of research is so marked and negatively related, and yet cause so few problems for professors.

Interview studies controlling on academic rank, college affiliation, and degree of professional identification also recommend themselves as means of providing additional information concerning the interplay between traditional features of academia (e.g., academic rank), professional features (e.g., primary reference groups), and bureaucratic features (e.g., college) with respect to satisfaction with the professors' role activities and/or with the university organizational structure.

Another virgin area of research involves initial surveys conducted on undergraduate students, graduate students and the public concerning how these groups feel professors spend their time and should spend their time. Further, research in this area should be conducted on how these groups perceive their roles vis a vis the college professors they have encountered in the classroom or outside. One easy way to obtain information on the conceptions the public holds on the roles of college professors is provided by the vast number of public who come into contact with professors in adult education, university sponsored seminars, etc.

More studies on faculty "mobility" and "mortality" is not recommended. Movements in and out of jobs do not appear to be really crucial types of study when it seems that professors' attrition rate at large state-related institutions is not really great enough to justify study.

Other areas of study could be enumerated into a long list but this would not really be purposeful. What is needed is more research concerning all aspects of the roles of this crucial talent source in our society not only from the point of view of professors but also from the points of view of undergraduate and graduate students as well as from the public.

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APPENDIX A

TABLE A. Distribution of Revised Sample by College Affiliation

College	Number	Percent
Agriculture	73	13
Art and Architecture	21	4
Business Administration	17	3
Earth and Mineral Industries	32	6
Education	40	7
Engineering	74	13
Health and Physical Education	22	4
Human Development	32	5
Liberal Arts	117	20
Science	81	14
Ordinance Research Laboratory	15	3
Incomplete[a]	44	8
TOTAL	568	100

[a] These respondents answered all the questions except the question on college affiliation. A comparison of these respondents' answers with the other faculty responses indicated no differences.

TABLE B. Distribution of Revised Sample by Academic Rank

Rank	Number	Percent
Instructor	79	14
Assistant Professor	163	29
Associate Professor	156	28
Full Professor	167	29
TOTAL	565[a]	100

[a] Three respondents did not give their rank

TABLE C. Type of Colleges or Universities Where Degrees/Professional Licenses were Received, by Total Faculty

Type	Number	Percent
B.A. - Bush	4	1
B.A. - Minor	21	4
B.A. - Major	5	1
M.A. - Bush	6	1
M.A. - Minor	98	18
M.A. - Major	22	4
Ph.D. - Minor	208	38
Ph.D. - Major	160	30
Foreign University	18	3
TOTAL	542	100

TABLE D. Respondents' Year of Graduation, by Total Faculty

Year Graduated	Number	Percent
1926 - 1940	60	11
1941 - 1945	31	6
1946 - 1950	45	9
1951 - 1954	64	12
1955 - 1960	99	18
1961 - 1964	110	20
1965 - 1967	99	18
1968 - 1969	34	6
TOTAL	542	100

TABLE E. Level of Courses Taught by College

College	Undergraduate N	Undergraduate %	Graduate N	Graduate %	Continuing Ed. N	Continuing Ed. %
Agriculture	48	66	49	67	15	21
Art and Architecture	21	100	12	57	6	29
Business Administration	16	94	13	76	2	12
Earth and Mineral Industries	28	88	29	91	5	16
Education	29	73	32	80	5	13
Engineering	65	87	43	58	16	22
Health and Physical Education	20	91	4	18	1	5
Human Development	26	81	19	59	3	9
Liberal Arts	110	94	85	73	25	21
Science	72	89	68	84	4	5

TABLE F. Level of Course Taught by Academic Rank

Academic Rank	Undergraduate N	Undergraduate %	Graduate N	Graduate %	Continuing Ed. N	Continuing Ed. %
Instructor	70	89	15	18	14	18
Assistant Professor	146	90	103	63	30	18
Associate Professor	132	85	122	78	22	14
Full Professor	129	77	147	88	25	15
No answer	3		3		3	

TABLE G. College Professors' Reported Preferences on the Use of Their Time, by Total Faculty

	Spend more time at[a]		Spend less time at[b]	
	N	%	N	%
Research	283	58	57	13
Teaching	139	29	88	21
Administration	3	1	238	56
Service consulting	11	2	6	1
Professional, personal	20	4	8	2
No Change	31	6	32	7
Character building	-	-	-	-
TOTAL	487	100	429	100

[a] no answer - 14

[b] no answer - 24

TABLE H. Comparison of Types of Professional Productivity During Academic Career of Faculty by College

	Average Productivity by Means		
College	Papers Delivered	Papers Published	Books Published
Agriculture	12.2	2.6	.3
Art and Architecture	1.7	1.0	.6
Business Administration	2.2	2.4	1.2
Earth and Mineral Industries	4.3	2.2	.6
Education	5.2	2.2	.7
Engineering	8.8	1.9	.4
Health and Physical Education	1.5	.8	.1
Human Development	3.7	1.8	.4
Liberal Arts	23.7	2.3	1.1
Science	11.5	3.2	.6

TABLE I. Comparison of Types of Professional Productivity During Academic Career of Faculty by Rank

	Average Productivity by Means		
Academic Rank	Papers Delivered	Papers Published	Books Published
Instructor	.6	.7	.1
Assistant Professor	1.2	1.4	.2
Associate Professor	2.2	2.7	.6
Full Professor	3.5	3.5	1.3

TABLE J. Reliability Check on Faculty Productivity in each College Using all Citations for Last Three Years, by Means

	Mean per Year							
	1966		1967		1968		Total	
College	N	Mean	N	Mean	N	Mean	N	Mean
Agriculture	345	24.64	334	23.85	333	23.79	1,012	72.29
Art and Architecture	23	3.8	27	4.5	15	2.5	65	10.83
Business Administration	43	7.2	35	5.8	47	7.8	125	20.83
Earth and Mineral Industries	225	18.7	272	22.6	304	25.3	801	66.75
Education	100	11.0	106	11.8	95	10.5	301	33.45
Engineering	171	17.10	164	16.4	156	15.6	491	49.10
Health and Physical Education	Too low to calculate						59	
Human Development	24	6.0	25	6.2	30	7.5	79	19.77
Liberal Arts	255	15.0	332	19.2	330	19.4	917	53.94
Science	299	33.2	346	38.5	324	36.0	969	107.67

TABLE K. Number of Professional Achievements, by Total Faculty

Number	Number	Percent
None	370	65
1	70	12
2	46	8
3	36	7
4 plus	46	8
TOTAL	568	100

APPENDIX B

Questionnaire Used in Study

Dear Professor:

The enclosed schedule is designed to gather information about various aspects of the college professor's work, as he views it, in a large university.

Schedules are being sent out to approximately 1,800 Penn State faculty members. It is my hope that you, and all faculty, will take time from your busy schedule to fill out the needed information. Obviously, the study depends completely on the generosity and cooperation of each respondent.

The research is being supported by the United States Office of Education. Summary results of the study will be used initially as a doctoral dissertation by the project director. It goes without saying that the data will be held in the strictest confidence and no individuals or departments will be identifiable in any of our reports.

As you will see, most of the questions can be answered by circling a number; some need a brief elaboration. The average time needed to complete the entire schedule has been found to be approximately 40 minutes.

If you have any questions regarding the study, please contact me at: The Department of Sociology, 115A Temporary Office Building, University Park, Pennsylvania, telephone no. 865-8352.

Thank you.

Sincerely,

James H. Huber

James H. Huber
Project Director

JHH:ddh

Enclosures

PART ONE: Occupational Satisfaction

Would you please rank your present position on each of the following matters by circling the number which corresponds to the degree of satisfaction or dissatisfaction you feel at this time about your role as a college professor.

KEY: 1 = not at all satisfied, 2 = somewhat dissatisfied, 3 = uncertain
4 = somewhat satisfied, 5 = completely satisfied

	How Satisfied Are You?	NAS	SD	U	SS	CS
1.	With your present salary	1	2	3	4	5
2.	With university medical insurance programs	1	2	3	4	5
3.	With university policies regulating sabbaticals	1	2	3	4	5
4.	With university policies regulating leaves of absence	1	2	3	4	5
5.	With university policies regulating tenure	1	2	3	4	5
6.	With university policies regulating promotions	1	2	3	4	5
7.	With university policies regulating salary increases	1	2	3	4	5
8.	With university policies regulating retirement benefits	1	2	3	4	5
9.	With university policies regulating travel benefits	1	2	3	4	5
10.	With physical facilities in your department	1	2	3	4	5
11.	With secretarial and clerical services for faculty	1	2	3	4	5
12.	With course scheduling of your classes	1	2	3	4	5
13.	With the current relationship between teaching and research in your department	1	2	3	4	5
14.	With the emphasis put on undergraduate teaching in your department	1	2	3	4	5
15.	With the degree to which teaching ability is considered on an equal basis with publications and research in evaluating faculty for promotions and raises in your department	1	2	3	4	5
16.	With university sponsored opportunities available to you to engage in student-faculty activities other than classroom teaching	1	2	3	4	5
17.	With your usual teaching load per term	1	2	3	4	5
18.	With your opportunity to teach the courses you want to in your department	1	2	3	4	5
19.	With your opportunity to help decide curriculum policies in your department	1	2	3	4	5

How Satisfied Are You?	NAS	SD	U	SS	CS
20. With your opportunity to influence departmental policy in faculty committees	1	2	3	4	5
21. With the amount of recognition you receive for your work in the classroom by the administration	1	2	3	4	5
22. With the quality of your teaching in your courses	1	2	3	4	5
23. With the amount of government support you receive for your research activities	1	2	3	4	5
24. With your own academic profession's criteria for evaluating professional excellence	1	2	3	4	5
25. With the amount of free time you have to engage in personal research and/or writing	1	2	3	4	5
26. With the facilities and resources available to you that are necessary to conduct your research	1	2	3	4	5
27. With the university's recognition of different kinds of academic research other than grantsmanship	1	2	3	4	5
28. With your department's expectations of the amount of research funds obtained by faculty needed for promotions or raises	1	2	3	4	5
29. With your department's expectations regarding the type of publications needed for promotions or raises	1	2	3	4	5
30. With research and publications being considered on an equal basis with teaching ability in evaluating faculty for promotions or raises	1	2	3	4	5
31. With the opportunity you have to do basic research	1	2	3	4	5
32. With your ability to relate and use your research activities in your teaching	1	2	3	4	5
33. With your ability to coordinate and integrate all of the professional duties you engage in	1	2	3	4	5
34. With the federal government's regulations and policies concerning grants and contracts with faculty researchers	1	2	3	4	5
35. With promotions and raises being realistically related to the professional activities you were initially hired to perform	1	2	3	4	5
36. With the central administration's commitment to developing academic excellence among all departments.	1	2	3	4	5
37. With faculty-administration communication on student-related problems	1	2	3	4	5
38. With the university's size lending itself to the type of professional activities you prefer to maintain during your career	1	2	3	4	5
39. With the expectations that the university administration has for evaluating faculty performance	1	2	3	4	5

How Satisfied Are You?	NAS	SD	U	SS	CS
40. With inter-departmental communication on educational policy..............................	1	2	3	4	5
41. With the faculty senate's influence on university policy..	1	2	3	4	5

42. If a colleague of yours were looking for a job and asked you about this university as a place to work, would you: (check one)

_____ Definitely not recommend it.
_____ Probably not recommend it.
_____ Undecided.
_____ Recommend it, but with reservations.
_____ Highly recommend it.

43. How would you describe your feelings about your career thus far? (check one)

_____ The future does not look good at all and I do not have any great hope for the long-range future.
_____ I am stymied where I am and probably will have to move out to get ahead professionally.
_____ My career has had several ups and down professionally so that I'm not sure just what my future plans are.
_____ Good progress thus far, but I'm not sure about the future.
_____ Good progress, I feel reasonably satisfied with where I am.
_____ Good progress thus far, and the future looks good.

44. Have you recently seriously considered accepting another position?

_____ No
_____ Yes: In what type of organization? ______________________________

PART TWO: Occupational Activities

These questions primarily concern your activities as a professor. Their purpose is to obtain a profile of how you usually divide your work time during the academic year.

1. Please estimate the relative percentage of time you usually spend during the academic year at the following: (If you do not engage in a particular activity, please indicate with a zero.)

____% Teaching undergraduates
____% Counseling and advising undergraduates
____% Teaching graduate students
____% Directing graduate students' theses
____% Sponsoring extracurricular student activities (e.g., clubs)
____% Departmental committee meetings
____% College committee meetings
____% University level committee meetings
____% Basic research activities
____% Applied research activities
____% Consulting with government or industry
____% Writing professional articles, papers/books
____% Local community service activities
____% Other (specify) ____
____

2. How many hours per week do you normally spend performing your professional duties? _____hours per week

3. If you had your choice which of your activities would you:

Spend more time at: ____
Spend less time at: ____

4. Do you hold a faculty appointment in more than one department?

_____ No
_____ Yes: PLEASE NOTE THAT ALL SUBSEQUENT QUESTIONS ASKING ABOUT "YOUR DEPARTMENT" SHOULD REFER TO THE UNIT WHERE YOU ARE PRIMARILY IDENTIFIED.

5. How adequate are your department's overall facilities compared with other similar institutions for engaging in your most frequent work activity? (circle one)

Inadequate	Somewhat Inadequate	Adequate	Better Than Adequate	Superlative
1	2	3	4	5

6. Which of your department's facilities for carrying out your most frequent work activity do you feel is:

Somewhat inadequate: ____
____
Better than adequate: ____
____

7. Are you currently engaged in doing any research?

_____ Yes
_____ No: SKIP TO QUESTION NO. 10.

8. Are you currently collaborating with other faculty members or other persons on a research project?

_____ Yes
_____ No

9. How many research projects do you currently have underway? ____________

10. How would you rank the availability of the following research funds for your research interests? (circle one for each line)

	Inadequate	Somewhat Inadequate	Adequate	Better than Adequate	Superlative
University funds	1	2	3	4	5
Department funds	1	2	3	4	5
Foundation funds	1	2	3	4	5
Industry funds	1	2	3	4	5
Federal government funds	1	2	3	4	5
Other (specify) ________	1	2	3	4	5

11. What source usually provides you with the largest proportion of your research funds? (check one)

_____ University funds
_____ Departmental funds
_____ Foundation funds
_____ Industry funds
_____ Federal government funds
_____ Other (specify) ____________________

12. Does your department have regular meetings for faculty members to present and discuss their own research?

_____ No
_____ Yes: Approximately how many times per year? _____(specify)
Do you regularly attend these meetings? _____ Yes _____ No

13. Do you teach courses at all during a normal year?

_____ No: SKIP TO QUESTION NO. 17
_____ Yes

14. How many class hours per week do you usually teach during a typical term? _____class hours per week

15. How often during a typical academic year do you relate your own research to the undergraduate classes you teach? (circle one)

Not at All	Very Infrequently	Occasionally	Frequently	Very Frequently
1	2	3	4	5

16. How often during a typical academic year do you relate your own research to the graduate classes you teach? (circle one)

Not at All	Very Infrequently	Occasionally	Frequently	Very Frequently
1	2	3	4	5

17. Does your department have regular meetings for faculty members to present, discuss and evaluate their teaching activities?

_____ No
_____ Yes: Approximately how many times per year? _____(specify)
Do you regularly attend these meetings? _____ Yes _____ No

18. What kind of control is exercised over the content of the courses taught in your department? (check all those you feel apply)

_____ University sets guidelines
_____ College sets guidelines
_____ Departmental guidelines
_____ Faculty committee sets guidelines
_____ Colleagues inform others on what is expected as guidelines
_____ Persons teaching the courses set their own guidelines
_____ Students help faculty set guidelines
_____ Other (specify) ____________________

19. How many graduate students do you have this term for assisting you in either teaching or research? Please indicate the number:

For teaching: _____
For research: _____

20. How long have you been a member of this department? _____years

21. How much has your department changed, or not, since you first came to this university as a faculty members? (circle one for each line)

	Large Decrease	Decrease	No Change	Increase	Large Increase
Teaching loads	1	2	3	4	5
Amount of funds available for research	1	2	3	4	5
Quality of work facilities (equipment, office space, library, etc.)	1	2	3	4	5
Quality of graduate students	1	2	3	4	5
Quality of undergraduates	1	2	3	4	5
Quality of faculty	1	2	3	4	5
Administrative "red tape"	1	2	3	4	5
Academic staff size	1	2	3	4	5
Non-academic staff size	1	2	3	4	5
Influence of federal government on the researcher	1	2	3	4	5
University's role in public policy making	1	2	3	4	5
Faculty's role in developing the moral character of students	1	2	3	4	5
Faculty committee loads	1	2	3	4	5
Faculty's role in university level policy making	1	2	3	4	5
Other things you feel are important but are not listed: (specify) __________	1	2	3	4	5

22. How much influence does each of the following have in the listed decisions? (Fill all boxes by placing the appropriate number in the proper box.)

KEY: 1 = no influence, 2 = some influence, 3 = uncertain
4 = moderate influence, 5 = great deal of influence

Type of Decision	Individual Faculty	Faculty Committee	Senior Faculty	Department Chairman	University Administration
New faculty appointments					
Faculty promotions					
Faculty raises					
Admitting graduate students					
Allocating departmental funds					
Course assignments					
Course meeting times					
Resolving student complaints on teaching					
Allocating office space					
Selecting new department chairman					
Degree requirements					
Sabbaticals					
Focus of faculty research					
Attendance at professional meetings					
Curriculum development					
Other (specify) ____________					

23. Are you currently employed in any capacity outside of your academic position at this university?

_____ Yes: Is the nature of the work related to your academic duties?
_____ Yes _____ No

_____ No: Is there any particular reason for this? ____________

24. How many papers have you delivered at the meetings of professional or academic societies during your academic career? _____(actual number)

25. How many papers have you published in professional journals during your academic career? _____(actual number)

26. How many published books have you written or edited within your field during your academic career? _____(actual number)

27. How many professional societies are you a member? _____(actual number)

28. Are you presently a member of the Faculty Senate?

_____ Yes
_____ No

29. Have you ever been a member of the Faculty Senate?

_____ Yes
_____ No

30. What level of courses do you teach throughout a normal year? (check all that apply)

_____ Undergraduate
_____ Graduate
_____ Adult education, extension or continuing education

31. Please list what you personally feel are the most significant committees of which you are or have been a member.

____
____

PART THREE: How Professors View Their Roles

1. Please rank the importance of the professorial duties listed below for you as a college professor. (circle one for each line)

	Not Important	Uncertain	Important
Basic research	1	2	3
Applied research	1	2	3
Obtaining research funds	1	2	3
Professional writing	1	2	3
Consulting	1	2	3
Committee work	1	2	3
Administrative duties other than committee work	1	2	3
Public service to the state/ communities	1	2	3
Training graduate students	1	2	3
Undergraduate teaching	1	2	3
Graduate teaching	1	2	3
Counseling and advising students	1	2	3
Influencing the moral development of students	1	2	3
Other (specify) ____________	1	2	3

2. Please evaluate the professional duties listed below in terms of how EFFECTIVE you feel you are in performing each.

	Not Effective	Uncertain	Effective
Basic research	1	2	3
Applied research	1	2	3
Obtaining research funds	1	2	3
Professional writing	1	2	3
Consulting	1	2	3
Committee work	1	2	3
Administrative duties other than committee work	1	2	3
Public service to the state/communities	1	2	3
Training graduate students	1	2	3
Undergraduate teaching	1	2	3
Graduate teaching	1	2	3
Counseling and advising students	1	2	3
Influencing the moral development of students	1	2	3
Other (specify) ________	1	2	3

3. What has been your greatest source of personal satisfaction since you became a college professor?

____

____

____

4. If you could be remembered at this university for any one of the activities listed below, which one would you want to be? (check one)

_____ Good teacher
_____ Good researcher
_____ Mentor of outstanding graduate students
_____ Dedicated public servant
_____ Dedicated university employee
_____ Other (specify) ______________________________
____

5. Given the opportunity, which of the following positions would you be interested in achieving in the next five years? (circle one for each line)

	Uninterested	Undecided	Interested
Department chairman	1	2	3
Full-time director of your own basic research project	1	2	3
Applied researcher in industry or government	1	2	3
Full-time teacher without research responsibilities	1	2	3
Research professor without teaching responsibilities	1	2	3
Basic researcher in industry or government	1	2	3
University or college administrator	1	2	3
Director of an academic related research institute	1	2	3
Other (specify) ________	1	2	3

6. To what extent do you feel that faculty opinion influences university-wide decisions concerning broad educational policy? Would you say faculty opinion is: (circle one)

Ignored	Given Minor Weight	Moderately Considered	Given Substantial Weight	Decisive
1	2	3	4	5

7. Of the committees, boards, etc., at this campus which one do you think is the most effective medium for expressing the faculty's viewpoints? (write-in)

____

____

____

8. Does your conception of a fair day's work for a fair day's wage differ from: (check one for each line)

Administration's	____ Yes	____ No	____ Don't Know
Department chairman's	____ Yes	____ No	____ Don't Know
Your colleagues'	____ Yes	____ No	____ Don't Know
Your undergraduate students'	____ Yes	____ No	____ Don't Know
Your graduate students'	____ Yes	____ No	____ Don't Know
The lay community's	____ Yes	____ No	____ Don't Know

9. As you view the issue of "publish or perish," what degree of pressure to publish do you feel comes from each of the following:

	No Pressure	Moderate Pressure	Substantial Pressure	Great Pressure
University administration	1	2	3	4
College administration	1	2	3	4
Department chairman	1	2	3	4
Department colleagues	1	2	3	4
Professors themselves	1	2	3	4
Students	1	2	3	4
Public	1	2	3	4
Other (specify) _______	1	2	3	4

10. To what extent do you feel the university lives up to its initial employing agreements with the faculty?

Never Does	Frequently Does Not	Undecided	Usually Does	Always Does
1	2	3	4	5

11. Which of the following activities do you feel "should be" a legitimate reason for denying a professor tenure? (check all answers you feel apply)

_____ Insufficient publications
_____ Inadequate teaching at the undergraduate level
_____ Reluctance to serve on committees
_____ Reluctance to serve the lay public
_____ Flouting administrative authority
_____ Radical political activity
_____ Personality conflicts with colleagues
_____ Moral turpitude
_____ Other (specify) ______________________________

12. Which group do you feel should judge a professor who violates professional standards? (check one)

_____ Lay public
_____ Legal authorities
_____ Undergraduate students
_____ Graduate students
_____ College administrators
_____ Department chairman
_____ Department colleagues
_____ Professional colleagues elsewhere
_____ Other (specify) ______________________________

13. In obtaining promotions and raises in your department, do you feel that one's professional ability to do one's job well is considered? Would you say that ability to do the job is:

Not Really Considered	Not Considered Enough	Undecided	Usually Considered	Always Considered
1	2	3	4	5

14. Please rank the following according to their actual importance in your department as criteria in evaluating faculty for salary increments and promotions.

	Not Important	Little Importance	Uncertain	Moderately Important	Very Important
Teaching performance	1	2	3	4	5
Publications	1	2	3	4	5
Honors received	1	2	3	4	5
Student evaluations	1	2	3	4	5
Other job offers received	1	2	3	4	5
Service to lay community	1	2	3	4	5
Sponsoring student activities	1	2	3	4	5
Ability to secure research grants	1	2	3	4	5
Influence of colleagues	1	2	3	4	5
Ability to get along with colleagues	1	2	3	4	5
Research potential	1	2	3	4	5
Committee work	1	2	3	4	5
Overall administrative ability	1	2	3	4	5
Other (specify) ____	1	2	3	4	5

PART FOUR: Background Information

1. Age at last birthday: _____years

2. Sex: _____male _____female

3. Marital Status: (check one)

_____ Single: SKIP TO QUESTION NO. 5
_____ Married
_____ Widow, widower
_____ Divorced

4. Number of years married: _____

5. What degrees do you hold? (check all that apply)

_____ B.A./B.S.
_____ M.A./M.S.
_____ Ph.D./D.ed.
_____ Other (specify) ________________________________

6. Are you presently working towards any degrees? _____ Yes _____ No

7. At what colleges or universities did you receive your degrees/professional licenses?

Degree	Name of College or University	Degree Dates
B.A.		
M.A.		
Ph.D.		
Other		

8. What professional achievements and honors have you received - Prizes, honorary degrees, etc. (list)

____

____

____

9. What is your field of professional identification? ________________

10. How many years have you been employed in your professional field?
_____years

11. At how many universities or colleges including this university have you held a position during your career? _____(actual number)

12. At what university/college were you last employed before you came to this university? ____________________________

13. What rank do you presently hold at this university?

_____ Instructor
_____ Lecturer
_____ Assistant Professor
_____ Associate Professor
_____ Full Professor
_____ Other (specify) ________________________

14. Do you have tenure?

_____ Yes
_____ No

15. My department, professional school, or other university agency is (specify) ________________________________

16. How many civic, club, fraternal or community organizations are you a member? _____(actual number)

17. Are you a member of the local chapter of the AAUP?

_____ Yes
_____ No

18. What was your first job's beginning income, your present income and what eventual income do you believe you may earn? Would you simply provide an approximation as follows:

	Beginning	Present	Eventual
1. Up to 4,999			
2. 5,000 to 6,999			
3. 7,000 to 8,999			
4. 9,000 to 9,999			
5. 10,000 to 12,999			
6. 13,000 to 14,999			
7. 15,000 to 16,999			
8. 17,000 to 18,999			
9. 19,000 to 20,000			
10. 20,000 and over			

19. Present sources of income:

	Percentage of Income Derived From This Source
Academic Salary	_____
Consulting	_____
Income from writing	_____
Other sources (specify) ____________	
______________________________	_____
	100%

THANK YOU FOR YOUR COOPERATION

Please put the completed information schedule in the enclosed self-addressed envelope and return it to me via campus mail.

First Appeal

Dear Professor:

If you have completed and returned the information schedule for "A Study of the Roles of College Professors," please consider this an expression of my deep appreciation for your cooperation.

If you have not completed your schedule and are wondering whether the information is still needed, the answer is definitely yes. Won't you please be kind enough to take the 40 minutes or so necessary to complete the form and return it soon?

The form was sent to you by campus mail on October 31st. If you might have misplaced the schedule and need another, let me know by phoning 865-8352.

For those who may have been wondering, this study is concerned with the occupational roles of college professors at a typical large university. It does not represent a case study of the PSU and should not be interpreted as such. Note that among the options for Question 12 in Part III, the normal procedures of The Pennsylvania State University and the AAUP procedures of good academic practices were inadvertently not listed. Please take this into account in answering the question. Thank you.

Sincerely yours,

James H. Huber
Project Director

JHH:bkj

Second Appeal

Published in Faculty Bulletin, Vol. 56, No. 26
(January 24, 1969, page 4)

As part of a study funded by the U. S. Office of Education, questionnaires to gather information about the occupational roles of professors at a typical state-related university were mailed late last year to all full-time faculty members at the University Park Campus. Approximately half of the persons originally contacted have returned the questionnaire.

To make the study as comprehensive as possible, all faculty members who have not yet returned their questionnaire are urged to do so. James H. Huber, of the department of sociology is in charge of the study. He emphasizes that the data gathering is an independent, scholarly research in no way to be used for evaluation of individuals.

If the questionnaire has been misplaced, replacement copies can be obtained by phoning 237-2718 or writing to room 115A Temporary Office Building. It would be greatly appreciated if all returns were made by January 31.